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Detroit Medical Journal.

NEW SERIES. VOL. I. | JUNE, 1877. | No. 6.

Original Communications.

Diabetes Mellitus—Report of Two Cases—Recovery—Physiological Effects of Sulphides — Trommer's Test and the Sulphides.

BY T. CURTIS SMITH, M. D., MIDDLEPORT, OHIO.

Read before the Ohio Valley Medical Association May 3d, at Ashland, Ky., and ordered to be published.

[In the treatment of the following cases, in the investigation and experiments and in the discovery of the interference of the sulphides with Trommer's test, my friend and partner, Dr. E. C. Fisher, deserves as much credit, if any attaches, as myself.]

CASE I. F. S., æt. 20, nervo-bilious temperament, farmer, of general good health, excellent habits and industrious, on his maternal side inherits phthisis distantly. Saw him in September, 1876, when I found him laboring under the effects of malarial fever, then very prevalent in his vicinity. From this he soon recovered, but was left weak and continued for some weeks unable to exert himself to any considerable extent. Tonics and continued rest failed to restore his strength He stated at my first visit that he was making "plenty of water." This was in

reply to inquiry. His weakness continuing and rather increasing, Dr. Fisher was called October 25th, in my absence, to see him. He was found with considerable general debility, general malaise, nocturnal fever, some lumbar and head-pains, with considerable renal derangement; urine reported quite free. On my return I called to see him November 5th; found him with all the above symptoms except fever, but also with considerable cough and hoarseness, well defined symptoms of bronchitis and dullness over the apices of both lungs; had a peculiar cachectic appearance, pulse 90, skin felt normal, temperature 99; had severe night sweats, loss of appetite. On account of his slight hereditary tendency to phthisis, I was disposed to anticipate trouble of this kind and doubted his recovery; thought his increased loss of flesh due to this and nothing else. No mention had been made to me of his excessive flow of urine at this visit, nor at any time except my first visit, when he said that he made "plenty of water—more than in health." After two weeks of treatment for his bronchitis it disappeared, as did also his nocturnal ephydrosis. The appetite then became insatiable, but still no gain in his strength; a continued loss of flesh and strength noticeable, though not rapid. As his lungs had now entirely cleared up, it seemed to me he ought to become stronger, as no evidence had been elicited after pretty careful examination to account for his continued weakness. This carried the case up to November 17th. His mother at this visit asked me if her son had ever told me of his "making so much water." I told her no. She stated that he made about twice as much as he ought, as she thought. On conferring with Dr. Fisher, we concluded his trouble might very possibly be diabetes mellitus. Accordingly a specimen of his urine was obtained and analyzed—first by Dr. F., then by myself—when we found undoubted evidence of sugar, in considerable quantity, in his water by means of Trommer's, Bœttger's and Moore's tests, and the fermentation test. A careful measurement of his water showed that he was voiding nine pints per 24 hours, which was far beyond all expectations from previous representations. It was further elicited that he had been afflicted with an excessive flow of urine most

all of the previous summer, during which time he had felt listless and indisposed to work, always becoming tired very soon. His weight was now 117 pounds, average weight 135 pounds. Having the diagnosis now clearly made out, it was at once determined to put him on the sulphide of calcium and Pavy's anti-diabetic diet.

This decision was made in view of the very fatal results from this disease, under any course of treatment that had ever been adopted, except the report of a very few cases of recovery under the use of this sulphide. (See *Medical and Surgical Reporter*, vol. XXXIV, page 97, 1876, and same journal, vol. XXXV, pages 398 to 400.) These cases were reported by Drs Scattlif, of England, and C. C. Cranmer, of Saratoga, N. Y. These cases, coupled with a commendable report of the value of the sulphide of calcium in this disease, by that very excellent authority, Sidney Ringer, referred to in the *Reporter*, but never seen by me, and a brief note of its value by an Italian physician, were sufficient to cause me to come to this decision promptly, though in doubt of its value. I therefore placed the patient on sulphide of calcium grs. ii. every four hours, and Pavy's anti-diabetic diet, which is as follows: "Butcher's meat of all kinds, except liver, ham bacon or other smoked, salted, dried or cured meats, poultry, game, shell-fish and fish of all kinds, fresh, salted or cured. Animal soups, broths, beef tea, not thickened with flour. The almond, bran or gluten substitute for ordinary bread. Eggs dressed in any way, cheese, cream cheese, butter, cream, greens, spinach, turnip tops, turnips*, French beans*, brussels sprouts*, cauli-flower*, broccole*, cabbage*, asparagus*, seakale*, vegetable marrow*, mushrooms, water cress, mustard and cress, cucumbers, lettuce, endive, raddishes, celery, vinegar, pickles, jelly, flavored but not sweetened, savory jelly, blancmange, made with cream and not milk, custard, without sugar, nuts of all descriptions, except chestnuts, olives." (Those marked with an asterisk (*) may only be eaten in moderate quantity, and should be boiled in a large quantity of water.) The patient may drink "tea, coffee, cocoa from nibs, dry sherry, claret, burgundy hock, brandy and spirits, not sweetened, soda

water and bitter ale, in moderate quantity; may drink milk sparingly."

Pavy then states what must not be eaten or drunk, but as the above includes all of what may be used, the other articles must be inferred. (See Pavy on "Food and Dietetics," Amer. Ed., page 515.) This treatment was instituted on the 21st day of November, except that toast was allowed until the anti-diabetic flour was secured, which was received and its use commenced on the 7th of December.

An immediate diminution in the flow of the urine was observable, and a diminished quantity of sugar in that discharged, and an immediate increase in his weight was apparent. From 117 pounds, which was his weight November 21st, he gained one pound a day for the first fifteen days, his weight being 133 pounds in that time.

Sugar was detected in his urine in progressively decreasing quantities until December 14th, when it contained a trace. A mere trace persisted for two weeks longer. The quantity of urine ran down from nine pints at the commencement to one and a-half and two pints by December 15th, and never permanently increased above this afterwards. The specific gravity of the urine ranged at first from 1026 to 1036, generally standing 1030 to 1032. After a month's treatment it came down to 1020 as an average. Sometimes it was above this, sometimes below.

The tests for sugar in this case were made by the yeast, Trommer's, Moore's liquor potassa test, Bœttger's Bismuth, carb. soda and nitric acid test, Robert's comparative fermentation test, and the alcohol potash test. (See Bowman's chemistry, pp. 75–9, 5th Amer. from 4th Lond. Ed.) All these tests proved the existence of sugar unmistakably, and proved to us conclusively by the last of December or early in January that the urine no longer contained sugar. His diet remained unchanged until Feb. 15th, 1877, when a gradual resumption of an amylaceous diet was permitted and he was put back on the sulphide of calcium, which had been dropped off about a month previous. His weight had gone up to 137 and back to 134 pounds

on the diet above given. Soon after resuming a general mixed diet his weight ran up to 140 pounds, being heavier than he had ever weighed before at any time. There has been no return of diabetes to this date, now May 1st, 1877. This was the first case of diabetes that had occurred in my practice of fifteen years' duration, and of course I was happy, as was also Dr. Fisher, to observe such a happy and unexpected result by a plan of treatment so easy of execution.

Case II. Mr. M., æt. 52, came to my office Jan. 2, 1877, to be treated for urinary trouble. He is of a nervo-sanguinous temperament, of general good health for many years, until within the last two; height 5 feet 8 inches, former weight 165–8 pounds, weight now 140 pounds, habits semi-sedentary, very temperate and regular. He stated that he was then and had been for two years troubled with a morbid flow of urine which was very annoying and troublesome, and that it is now and had been causing loss of weight and strength. The disparity showed a loss of about 25 to 28 pounds of flesh. He seemed still vigorous but considerably broken down from his former self. He, upon measurement, found that he was making four and a half quarts of urine in 24 hours, sp. gr. 1032. Trommer's test showed a tolerably heavy deposit of dark brown ochre. Roberts' test showed that there was twelve grains of sugar to the ounce. All the tests before named proved unmistakably the presence of sugar in abundance. He was put upon the sulphide of calcium grs. iv., three to four times a day, and a mixed diet allowed for the first week, at the end of which time the urine contained eight grains of sugar to the ounce, and the urine was reduced to a trifle over two quarts. Pavy's anti-diabetic diet was now enjoined and strictly followed, and when a week later he brought a specimen of his urine it showed a sp. gr. of 1020. and not a trace of sugar. Though he had not weighed himself it was evident that he was gaining. But a month after commencing treatment he weighed 151 pounds. Soon after this a mixed diet was allowed but there was no return of the disease, nor has there been any to this date.

The pathology of diabetes is not even now sufficiently well

understood to lay it down with a degree of distinctness that can be considered clear and indisputable. Many theories have been offered in its explanation, and the very fact that such is the case, is conclusive proof that as yet its true pathology is not known.

There are five prominent theories to account for diabetes, each of which have now, or have had warm supporters. Bouchardat's notion was, that the "amylaceous elements of our food are converted into sugar by several animal products, as the saliva, the pancreatic and gastric fluids, rendered alkaline (having lost the property of dissolving flesh) continue capable of converting starch into glucose." He thinks the sugar of diabetes is made within the system entirely from farinaceous articles of diet, and that diabetic persons digest these differently from other and healthy persons.

2. The discovery by Claude Bernard of the sugar making function of the liver led many to adopt the theory that diabetes results from "over activity" of this function of the liver, which was supposed to be caused by undue stimulation of the liver by the great sympathetic system of nerves.

3. "A general and irritable state of the nervous system being a frequent, if not a constant symptom of diabetes, and as Claude Bernard records that irritation of the ganglionic centre in the medulla oblongata exercises a special influence over the functions and actions of the liver, and, moreover, as Flourens has shown that irritation of the floor of the fourth ventricle led to the presence of sugar in the urine of animals operated on, it has been conceived that the nervous centres are remotely the cause of this singular disturbance in the functions of the organism."

4. It has been held that a defective respiratory process by not consuming the sugar in the lungs might account for the accumulation of the sugar in the blood, and its consequent appearance in the urine. This theory grew out of the fact that when respiration was greatly impeded or imperfectly performed from any cause, as asthma, phthisis, pleurisy, pneumonia, hysteria, or the inhalation of ether or chloroform, that sugar was often found in the urine.

5. "The importance, the absolute necessity for the pre-

sence of certain alkaline salts in the blood, without which the further metamorphosis of many excrementitious substances would be incomplete, is well known. M. Miahl has proved by analysis of the blood of diabetic patients, that it is deficient in these alkaline salts; he states that the farina of our food is converted with equal activity into sugar both in health and in diabetes. But in health the sugar is decomposed or burnt off by the presence of these alkaline salts by the agency of the oxygen in the lungs; but in diabetes the decomposition does not take place, owing to the deficiency of these important constituents, and the sugar undergoing no further metamorphosis, passes off as such through the kidneys." (*Basham, Med. and Surg. Reporter*, vol. XXV.) The latter is to my mind much the more plausible theory, but we must get back of all this, if possible, in order to account for the deficient alkalinity of the blood, and in doing so we are driven at once to the nervous system, the great splanchnic system that presides over nutrition and assimilation from its first to its most minute and intricate stage, or from the time food enters the mouth until it is developed into tissue. In diabetes it may be, and probably is interfered with in its functions by some unknown influence just at the point where the alkalinity of the blood should commence, and still permits the complete formation of sugar from farinaceous diet. In other words my idea of the cause of diabetes is, that the process of assimilation is interfered with just at the point where amylaceous articles of diet are converted into sugar, and for want of sufficient nerve tone to produce the proper alkalinity of the blood necessary to oxidize the sugar, it is permitted to pass from the system unassimilated, through the renal organs. There is not in my opinion too much sugar manufactured within the system, but an inability to appropriate what is manufactured, be its quantity ever so small. Hence even on a strictly animal diet, the liver still continuing to manufacture sugar, the system eliminates it, small though the quantity may be, and still continues to grow weaker for want of the full process of assimilation, which is lost at the point where glucose is manufactured. Does sulphide of calcium establish the lost balance of nerve power and thus effect a cure?

Let me add here in closing this division of my subject, that if this disease has its origin in a structural lesion of the floor of the fourth ventricle, as is claimed by some authorities, it is not likely that any remedy will prove universally satisfactory in its treatment, especially when the disease is well advanced in its course. Yet even under such conditions, (granting this to be the primal origin of diabetes,) I would expect with the sulphides and proper diet to very greatly prolong the life, and add infinitely to the comfort of the patient. Time and much experience must confirm or disprove the power of the sulphides in diabetes melitus. Two cases do not prove the universal power of the remedy, but their weight is worthy of a moment's thought. Especially is this so in relation to a disease that is almost universally considered irremediable.

MIDDLEPORT, O., May 1, 1877.

TROMMER'S TEST AND THE SULPHIDES OF CALCIUM, SODIUM, AND POTASSIUM.

EXPERIMENTS BY MYSELF AND DR. E. C. FISHER.

During the past winter, while treating a case of Diabetes Mellitus with the Sulphide of Calcium, we found that Trommer's test gave what we thought were decided indications of sugar in the urine, while the yeast test, Bœttger's test, the alcohol potash test, Moore's test with liquor potassa, and Roberts' comparative yeast test, all failed to show the least amount of sugar in the urine. This led us to suspect that Trommer's test was interfered with, in some way, by the Sulphides that had been administered. We therefore prepared some grape sugar and added it to the healthy urine when we found Trommer's test to operate perfectly, showing that the fault was not with the test liquids. We then each carefully tested our own urine by Trommer's test, finding a complete absence of any sugar in the urine of either one, as the potash entirely failed to reduce the copper. We then each of us took four to five grain doses of the Sulphide of Calcium. In Dr. Fisher's case he found the same evidence of sugar in the urine that we had been getting in the diabetic subject for the

ten days past, viz.: the reduction of the copper to the suboxide with the characteristic light ochre deposit and yellow supernatent liquid. In 4½ hours the same evidence was perfect in my own case, and a free yellow ochre deposit in the urine was present under Tromer's test. Here, then, was a discovery of interference with Trommer's test not heretofore known, as far as we had ever learned, and one certainly worthy of note.

This effect of the Sulphide of Calcium in reducing the copper to the Suboxide we repeated many times over in our own cases, and at different times. We likewise demonstrated this effect on other persons, so we were fully satisfied that we were not mistaken. We were further satisfied that any physician or chemist, not fully informed on this point, could be made to believe that a certain specimen of urine was diabetic, when in fact the patient had only ingested the Sulphide of Calcium. Coming to this conclusion, a specimen of urine from our diabetic patient, whose urine at the time contained but the merest trace of sugar, and a specimen of urine that from frequent tests was known to be void of sugar, but from a subject who was ingesting the Sulphide of Calcium, was taken to my friend, Dr. P. H. Clarke, with the request that he analyze both of them for sugar, as coming from diabetic patients. The results of these analyses Dr. Clarke kindly gave me in writing, as follows:

MIDDLEPORT, O., Jan. 1, 1877.

DR. T. CURTIS SMITH, *Dear Sir*:—"In accordance with your request I have subjected the specimens of urine which you handed me to tests, with the results appended.

Specimen F.—(This was the non-diabetic urine), under Trommer's test yielded promptly and abundantly, the orange-red precipitate which characterizes the results following the use of this test in the presence of sugar, but when put under Horseley's Chromate of Potassa test there was not the slightest evidence of the presence of sugar.

Specimen S.—(This was from the diabetic subject in which a trace of sugar still existed), gave indications of the presence of sugar under Trommer's test, and Horseley's test, though far less

strikingly under the former than did specimen F. [The diabetic patient was still taking the Calcium Sulphide.] When Dr. Clarke made the above announcement to me as the result of these analyses, I requested him to test a specimen of his own urine with Trommer's test, and then to take a few small doses of the Calcium Sulphide and test again. This he kindly did, and in a note handed to me a little later, he makes the following statement: "As you requested, also, I examined a specimen of my own urine, under ordinary conditions, with Trommer's test, and found nothing to indicate the presence of sugar. It proved otherwise to be normal. I then took ten grains of Calcium Sulphide in divided doses of three and one-third grains each, and applied Trommer's test to a portion of my urine again, with the result of finding a heavy orange-red precipitate. I applied Horseley's test, and secured no changes that would indicate the presence of sugar." Respectfully, etc.,

P. H. CLARKE, M. D.

As Dr. Clarke is abundantly qualified to judge of these tests, his evidence proves that our idea, that one might be deceived in Trommer's test by the presence of the Sulphides was proven to be correct, the Dr. not knowing beforehand the change caused by the Sulphide. Careful observation, however, will lead one to detect the difference in Trommer's test in presence of sugar and that of the Sulphide of Calcium. In adding the copper and potash solutions to urine containing sugar in proper proportions, it makes a clear indigo blue solution, while in the presence of the Calcium Sulphide, it makes the indigo blue color solution, but there is a cloudy solution with flocculi in it. The two solutions will, when heated at the top first, slowly ring down from the top of the solution towards the bottom, or gradually become yellow from the top toward the bottom progressively; in this respect, being just alike, and the floating flocculi will have a very similar appearance. But if sugar is present the fluid will generally soon turn of the dark ochre color under continued boiling, or on standing while in the presence of the sulphide of calcium the continued boiling on standing does not change the color. Again, the deposits differ, to some extent, on standing for a time; that of the real sugar test is

granular and more solidly settled, while that from the Sulphide is more gelatinous, is not granular, and does not pack down as tightly as the former. The supernatent fluid in the presence of sugar is browner, or a darker brown, than the other, which is always yellow or orange-colored, often having a greenish tint. Yet, with all these nice little differences, it requires close observation to distinguish the two, and, withal, some practice. There can be no doubt that the presence of the sulphides in the urine reduces the copper to the suboxide, which is, and has always been, the secret of Trommer's test in detecting sugar.

Another easy point of distinction is to use Tromer's test by boiling the test liquids first, and then add the urine, drop by drop. In the presence of sugar, this acts at once and admirably, by giving the ochre deposit; but, in the presence of the sulphides by this method, the copper is not in the least reduced, and the ochre deposit fails to appear as it does when sugar is in the urine. The sulphides of sodium and potassium, in the same manner, seem to reduce the copper, with Trommer's test, when they are present in the urine; the only difference noticeable being that, with the copper and potassa solutions, they make perfectly clear (or nearly) indigo blue solutions, the same as in the presence of sugar; but, on boiling, they fail to ring down from the top as readily, and especially when the sulphide of Potassium has been ingested In all other respects these act, under Trommer's test, the same as does the sulphide of calcium specimens.

I have spoken all the time, so far, as though these sulphides passed through the kidneys as sulphides. Such is not, and could not, in the nature of the compounds, be the case; for these sulphides are very feebly held together, and a very slight chemical action is sufficient to change them to other compounds. Hence, after they are ingested they are very quickly changed into other compounds in the stomach, and from there absorbed; while—apparently, at least—sulphuretted hydrogen is set free.

The great query to us has been, how could such a compound produce such effects upon the urinary and other organs

as it is known to do? For it has been clinically demonstrated that it acts powerfully and rapidly in the relief of some acute and chronic skin diseases, and hence must, in some way, affect the nutrition and secretion of the integument. But, still further, it must act on the sugar producing organs, or change that condition of the nervous system that permits its excessive formation, or causes its rapid destruction, as the case may be, when diabetes is present; for, of all remedies yet discovered for this disease, the sulphides, so far, *seem to be* the most effectual. How or in what manner these changes are effected it is not here attempted to explain. But to return: The sulphides, as sulphides, are not excreted by the kidneys; neither do the sulphides, added to normal urine, reduce the copper in the solution to the suboxide. The resulting flocculi in the instances above named, where Trommer's test was used after the ingestion of the sulphides, seemed to be the phosphates, chiefly the phosphate of lime; as, under chemical tests, with these deposits, nothing but the phosphates were detected in them.

The mystery, still unexplained, is, how is it, or what principle is it in the urine, after the ingestion of the sulphides, that reduces the copper, in the presence of the caustic potassa solution and urine, to the suboxide of copper? Heretofore nothing but grape sugar was known to reduce the copper in this manner, and this has been the great principle and secret on which Trommer's test, so justly celebrated for its delicacy and accuracy, has rested, unchallenged, for many years. It is true that some other constituents of the urine may interfere with Trommer's test; but not in the same manner as do the sulphides after being ingested.

PHYSIOLOGICAL ACTION OF THE SULPHIDES OF CALCIUM, SODIUM, AND POTASSIUM.

Having, within the last few months, frequent occasion to use remedies for the purpose of diminishing the flow of urine, where the quantity discharged was very excessive and morbid, from well known diseases, where its excretion is often enormous,

the sulphide of calcium was resorted to, with what we considered remarkably good success. This and other reasons led us to take a few doses of it, which further led to the observation that it seemed to diminish the normal flow of urine in the healthy person. More especially was this noticed and spoken of, by my friend Dr. E. C. Fisher. We therefore agreed to institute a series of experiments to ascertain exactly, if possible, whether our suppositions were correct as to the actions of the sulphides. We knew thoroughly well from clinical observations that the sulphide of calcium had in no instance, for us, failed to diminish a morbid flow of urine.

In my own case I commenced the experiment by carefully measuring all the urine passed each twenty-four hours for three days. The diet, clothing, manner of living etc. being in every particular unchanged from my usual habits of daily life. My weight was normal, 135 pounds. State of health good, temperature of air cold, ranging from 16° above to 16° below zero, F.

On the first day the urine excreted was 32¾ ounces.
" " second " " " " 28¾ "
" " third " " " " 32¼ "

Total amount excreted in the three days 93¾ ounces.

Being an average of 31¼ ounces per day.

I then commenced to ingest the sulphide of calcium at the rate of four grains every four hours, taking five doses during the waking hours, not taking any after going to bed, until arising in the morning. After taking it for one day I commenced to measure the quantity excreted, which resulted as follows:

First day under the sulphide of calcium, urine excreted 26½ oz.
Second " " " " " " 27½ oz.
Third " " " " " " 17½ oz.

Total amount for the three days . . . 71½ oz.

Being an average of $23\frac{5}{6}$ ounces per day, or an average reduction of a little over 7 ounces per day. After twelve days of interim, I began, in precisely the same manner the use of the sulphide of sodium, resulting as follows:

First day under sulphide of sodium, urine excreted, 27 ounces.
Second " " " " " " 20½ "
Third " " " " " " 20½ "

Total amount for the three days..... 68 "

Being an average of 22⅔ ounces per day, and an average diminution of $8\frac{7}{12}$ ounces per day.

Again, after an interval of twelve days, I, in the same manner commenced the ingestion of the sulphide of potassium with the following result:

First day, under sulphide potassium, urine excreted, 18½ ounces
Second " " " " " " 20 "
Third " " " " " " 19½ "

Total amount for the three days..... 58 "

Being an average of 19⅓ ounces per day; an average reduction of nearly 12 ounces per day.

In following the practice of medicine there is necessarily in winter more or less irregularity of exposure to cold or wet weather. During the days, when the urine was measured without the ingestion of the sulphides, the exposure was less to cold air, by far, than it was during the ingestion of the calcium sulphide, and still far less than during the ingestion of the sodium sulphide. This difference of exposure should normally increase the discharge of urine, if these agents have no influence in causing the diminution, which is above noted. During the ingestion of the potassium sulphide the out-door exposure was about the same as when the urine was measured on the three days without either of these agents, and the diminished excretion under the last salt used is greater than under either one of the other sulphides.

The specific gravity of the urine normally excreted was usually 1028. That under the sulphides ranged from 1028 to 1032.

Dr. E. C. Fisher gives me the normal average of water he passed for three days as fifty ounces per day. Sp. gr. 1020; his body weight, 205 pounds. In his case, as in my own, the daily diet and mode of living was not in any way changed from

the usual. After ingesting the sulphide of calcium for a day (24 hours), he commenced to measure the urine, which resulted as follows:

	Ounces.
First day under sulphide calcium, urine excreted	48
Second day	54*
Third day	33¼
Total amount for the three days	135¼

An average of within a fraction of 44 ounces per day. An average reduction of 6 ounces per day.

The reduction here was materially interfered with by exposure to cold during the night of the first day.

After awaiting the total disappearance of all trace of the agent in the urine, or any of its effects, the Doctor, as with Calcium S., commenced the use of the sulphides of sodium, with the following result:

	Ounces.
First day under sulphide of sodium, urine excreted	35
Second day	40
Third day	41
Total amount of urine for the three days	116

An average of 38⅔ ounces per day. An average reduction of 11¼ ounces per day.

Again awaiting two weeks for the complete disappearance of the effects of the last agent above named, the sulphide of potassium was taken up in the same manner, with the following result:

	Ounces.
First day under potassium sulphide, urine excreted	32
Second day	22¾
Third day	24½
Total amount of urine frr the three days	79¼

*Exposed several hours to cold, damp air, standing mostly on ice.

An average of 26½ ounces per day (nearly). An average reduction of $23\frac{7}{12}$ ounces per day.

The specific gravity ranged 1020, 1028 and 1030, respectively, under the S. Calcium, S. Sodium and S. Potassium. Dose taken, four to five grains five times a day.

During nearly all the time of these experiments there was a cold, bracing air, generally dry. No material effect on the general system could be noticed during the use of the sulphide of calcium. We both thought we felt a little better than usual, but this might have been accidental, and for unrecognized reasons. There seemed to be neither increased appetite or thirst, nor any uneasy sensations in the stomach. There were occasional eructations, having a very disagreeable taste of sulphuretted hydrogen, and the gas which passed off per rectum had this odor to a very marked and unpleasant degree. There was evidently an increased relaxation of the bowels, but not sufficient to render the passages even semi-liquid.

The sulphide of sodium, during the time of taking it, caused considerable burning sensation in the throat, œsophagus and stomach, which finally extended along the small intestines. This was easily overcome, by either eating or drinking a little of anything after swallowing each dose.

The sulphide of potassium seemed even more acrid to the taste than tne sulphide of sodium, but less burning was observed in taking it than the latter. For several days after taking each preparation the effect on the urine, in diminishing the quantity discharged, was noticeable, and the sulphides could be detected in the urine from ten to fourteen days after stopping their ingestion.

The sulphide of calcium is the least unpleasant to take; causes less gastric uneasiness; seems to be more cumulative in its effects, and its power to diminish the urine seems to continue longer than either of the other sulphides.

While we recognize the fact that these experiments are not as nicely perfect as we could wish, we think we have demonstrated clearly that the agents are very effective in diminishing the flow of urine in health.

In cases of disease, one patient who was passing over a gallon of morbid urine per day, for a long period, was given the sulphide, in three-grain doses, every three hours. In two weeks he was passing less than two pints per day. Another case, that was voiding 4½ quarts per day, in less than a week voided but a pint and a half. Another, who was voiding five pints per day, in three days voided but two and a half pints. Such clinical facts, coupled with observations on ourselves, led to the experiments above related, and, we think, with satisfactory results, in showing the power of this class of remedies over the secretion of the urinary glands, and indicate that quite a revolution in the treatment of some forms of disease may be effected, where the kidneys act as the chief eliminants.

The Conservation of Vital Force an Essential Element of Conservative Surgery.

READ BEFORE THE DETROIT MEDICAL AND LIBRARY ASSOCIATION, BY DR. THEODORE A. M'GRAW.

MR. PRESIDENT AND GENTLEMEN:—In performing the duty which you have imposed upon me, I have thought it better to limit myself to one subject, rather than to range over the whole surgical field. I have therefore chosen to discuss in this paper the actual value of that conservative surgery which has been the boast of modern surgeons. The tone, assumed by certain authors on this subject, might lead the student to believe that the very idea of conservation was peculiar to this generation. Nothing could, of course, be more false or contrary to established facts, for there has never been a really great surgeon who did not seek to enlarge the scope of his art by discovering new methods to save deformed, diseased, and injured limbs, and make them useful to their owners. If we have been able to step in this direction a little in advance of our immediate ancestors, it is because we are now reaping the results of their ideas and labors. It may, too, be barely possible that certain modern methods of treatment have been trumpeted to an extent, not warranted by actual experience. They have, beyond all question, in many cases, when unsuccessful, caused the loss of many

human lives, as witness the unfortunate and disastrous attempts made during our late war to save compound fractures of the femur from amputation.

The present impulse to conservatism originated in Germany about the time of the Schleswig-Holstein war. The German surgeons working with every advantage, having abundance of supplies and short lines of transportation, were successful in saving many limbs which would have been doomed in former wars to amputation. The triumphant publication of their successes was followed by renewed efforts on the part of surgeons of all countries to make resections take the place of amputations in the treatment of diseased limbs. This impulse gained a new momentum from the spread of new doctrines of pathology as respects certain diseases of the spongy bones and joints. For when surgeons once conceived the idea that Potts' disease of the spine, hip-joint disease, white swelling of the knee and ankle, were essentially of inflammatory character, they became seized of the impulse to try and effect their cure by treatment appropriate to an inflammatory affection. A certain success followed this movement, a success which has doubtless been somewhat overestimated. It, nevertheless, has had a very important influence on professional opinions, for this, together with certain advances in our knowledge of the nature of congenital distortions, made it possible for very timid surgeons to do good work in orthopœdic surgery, by the careful and skilful adaptation of splints. This class of men, working usually in their own institutions, with the great advantage of being able to keep their patients under constant personal supervision, have often succeeded, by slow, laborious, and patient effort, in vastly improving many defective and crippled joints. Themselves dreading all operative measures, and utterly unable to realize the difficulties which beset surgeons who have to treat such patients at their own homes, they naturally began to decry surgical operations as unnecessary and cruel. This led to a gradual, but very decided, change in the meaning of conservative surgery. For, whereas, a few years ago, surgeons were considered as conservative who saved limbs from amputation, whether by operative or any other meas-

ures; they are, now-a days, regarded by many as radical and extreme if they do not postpone operative proceedings until the patient is nearly moribund.

This unphilosophical view of operative surgery may be tolerated in the laity, whose dread of the knife is natural, though often unreasonable; but on what grounds can it be excused in medical men, whose duty requires them to judge of remedies by their efficiency, rejecting none from sentimental considerations nor cowardly fears. The ultimate object which surgeons should have in the treatment of diseased limbs should be not only, nor even chiefly, to save a limb, but rather to so handle the case that the organism, as a whole, should receive the least injury. Now, I cannot doubt, from my own experience in military surgery, that a hand or a foot may be purchased too dearly. I have seen, for example, men who, years ago, in the *furore* for conservative surgery which prevailed in the war, suffered gun-shot fractures of the femur and recovered. I have yet to see one whose constitution was not broken by the effort to save the limb. There is something which is worth more to a man than any one member of his body. It is the vital force which gives elasticity to youth, vigor to age, and zest to life at all ages. If not as tangible, it is nevertheless as positive and definate a something as an eye or a leg. A cripple, having it, will live more happily than unmutilated men whose vital energy has been exhausted.

I think, therefore, that we should first ask of any mode of treatment, whether it will preserve vital force and, after that, whether it will save injured limbs. Now, it is well known that men may suffer amputation with very little loss of constitutional strength, provided only that their stumps heal kindly. Surgical operations in general, do not seem to make much drain upon the reserve force of an individual, however much pain or immediate danger may ensue. If recovery takes place early, and without much suppuration,the patient will usually, in a short time, regain his pristine vigor. That which saps the vital force, and imposes upon youth the decrepitude of age, is long confinement to bed, continued deprivation of air and exercise, habitual pain

and suffering, frequent hemorrhages, and above all, profuse and long-continued suppuration. Prima facie, therefore, in those cases, where the same end may be accomplished quickly by a surgical operation, or slowly by mechanical means and medical treatment, the bolder measure would seem the more justifiable. I have, for convenience sake, spoken of vital force as an entity. Whether this be so, or whether it consists, as I believe, in the utmost perfection of the minute organization of the most important viscera, is, for our present purpose, immaterial. The important thing is that we study the conditions of its preservation or loss, and bear them in mind in our surgical plans and proceedures. They certainly ought not to be forgotten when estimating the value of the various attempts at conservative surgery, which have of late years occupied the attention of many medical men.

The great wars of the last fifteen years have made many opportunities for surgeons to test their theories on a large scale. The actual results of their practice would, it is plain, be a better criterion of the value of their methods than any accidental successes on a smaller scale could possibly be. Just what the ultimate conclusions of the medical world ask as to the value of expectant practice in gun-shot fractures, or of excisions as practiced in cases of compound fractures of the joints or long bones will be, is, at the present time, impossible to say. My own judgment of the value of such modes of treatment is founded upon very many observations made in the military hospitals at Chattanooga during the period intervening between the battle of Chickamauga and the close of the war. I had then the opportunity of watching cases of wounds of all sorts for many months together, and had occasion to see the disasters arising from ill-judged attempts of conservatism, as well as the successes achieved, in proper cases, by surgeons of ability and experience.

Expectant treatment of wounds of bones and joints was rarely successful. Even those cases where bones had been merely bruised by bullets required, in the end, the use of the gouge or chisel before complete and final recovery was achieved. Resections of the bones and joints of the upper extremity were

so often followed by very excellent results as to establish the operation as one of undoubted value. It may fairly be said that no arm or hand ought ever to be amputated on account of gun-shot or other compound fracture, when only one bone is involved, and when there are no other complications. In fact, the circulation of the upper extremity is so good that the surgeon, under favoring circumstances, may sometimes undertake to save the injured limb, even when the injury is complicated with wound of main artery or vein. Should amputation be afterwards required, it could still be performed with good hope of recovery. As regards resections of the humerus, better ultimate results might have been attained, had surgeons waited longer before operating, for very many cases of primary operations recovered without regeneration of bone. Had the shattered bone been left until the detached periosteum had become stimulated to cell growth by the irritation of the fragments, a firm, bony, structure might have replaced that which had been destroyed.

Exsections of the lower extremities have not been followed by nearly so good results. Those of the ankle were most successful, although even then the spread of caries most frequently baffled the efforts of the surgeon. Under present methods of treatment, however, much better results might be anticipated than were actually obtained during the war. I have but recently discharged a patient from Harper's Hospital who illustrates forcibly the effectiveness of the seton method of treatment for compound fractures of the joints. He is a young German, through whose foot a charge of fine shot passed, discharged from a gun at very close quarters. The charge entered the inner edge of the foot between the astragalus and os naviculare, and passed directly through, emerging at the lower edge of the foot below and behind the external malleolus. The astragalus and os calcis were badly shattered, and the wound full of shot, wadding, fragments of bone and powder. I passed oakum strings through, as recommended by Dr. Sayre, and kept up a free channel for the discharge of pus and debris. The oakum strings were gradually diminished in size, then replaced by silk

and finally by silver wires. He recovered completely with absolutely perfect motion of the foot. Gun-shot fractures of the tibia or fibula may sometimes, if not too extensive, warrant exsection. In such cases the broken bones must be left in situ long enough to cause a regenerative process by the periosteum. Otherwise, there would be no replacement of the lost bone. In general, however, gun-shot fractures of the leg ought to demand immediate amputation, if not in civil practice, at least in military, for patients suffering from such injuries most frequently die of exhaustion before recovery can take place. Gun-shot fractures of the knee joint will always demand amputation, which in military practice ought to be primary. I have seen very many such cases, and never yet one of recovery. The only case of recovery of penetrating wound of the knee joint which I have ever seen, was one in which the ball had passed through under the patella without touching the bones. The probe was passed through the two wounds, and there can be no doubt that the joint was penetrated, but the wounds healed, nevertheless, by first intention. The experience of surgeons in the last war between France and Germany was very unfavorable to excision of the knee for such injuries. most all such operations were followed by the death of the patient. The same result followed excision of the hip, but as almost all patients, whose severe wounds required such an operation, died under whatever treatment was instituted, it may yet be justifiable for surgeons to try it again as a possible means of saving life. The continued attempts made by surgeons in our late war to save broken thighs, even after the experience of two and three years had demonstrated, beyond all doubt, its futility, are, to my mind, a shame and reproach to American surgery. I saw such cases by the hundred in Chattanooga hospitals. They came to linger for months in the wards, and after suffering horrible torture, to die of exhaustion or blood-poisoning Of such patients, scarcely five per cent. recovered at all, and what a recovery was that which left a man, drained of all his vitality and vigor, to drag around a neuralgic and nearly useless hip? As examining surgeon for pensions, I have, since the war, had occasion to

note both the relative infrequency of pensioners who have recovered from such injuries, and the terrible price which the few have paid to secure a very doubtful blessing.

It will not do, however, to be guided too closely by military experiences in civil life. The prognosis of all injuries must manifestly be better with well-fed citizens in their own homes, and attended by a multitude of willing friends, than with soldiers who may have suffered the privations of a campaign, and whose wounds have to be dressed in infected wards by over-worked surgeons and nurses.

The well-established fact, too, of the lesser mortality of any secondry amputation in civil practice would, of itself, lead a surgeon to avoid the greater risk of primary operations, so that we may be justified in attempting many things in conservative surgery with civilians which ought never to be undertaken at all in the practice of war. Children, too, will, it must be borne in mind, recover when adults would not, and only the worst cases of compound fracture occurring in childhood should warrant amputation of an extremity, before every effort had been made for its salvation.

The treatment of those inflammations of joints, which occur so frequently among scrofulous children, has formed a very important feature of modern conservative surgery. I coincide thoroughly with Dr. Sayre in the belief that the chronic affections of joints, such as hip disease, white swelling of the knee and ankle, Potts' disease of the spine and the like, are essentially of inflammatory character. I differ with him however in the belief that healthy children are equally with scrofulous children subject to such trouble. I see in the public dispensaries connected with the Detroit Medical College, and in private practice, annually, from thirty to fifty such cases. I rarely find one in which there are not other evidences of constitutional disease besides that exhibited in one joint or one diseased bone.

As regards treatment, there can be no question that the local treatment ought to be that adapted to an inflammation of the joint. It ought to have rest and protection from injury. The accomplishment of these indications, however, are exceedingly dif-

ficult. The application of splints to make extension and counter-extension is, in general practice, of frequent benefit—but often instruments fail to give the relief we hope for.

The results attained in orthopœdic institutions are no criterion of the value of modes of treatment in private practice. A mechanical surgeon with his own manufactory of splints, and with his patients under his absolute control, can achieve, with mechanical means, what can not be done by the same means under other circumstances. It is almost impossible in private practice to control patients for the lenghth of time which is required to effect a cure of these terrible cases. The best success may be obtained in Potts' disease of the spine. The application of Taylor's splint has usually given great relief and often stopped the progress of the disease. It has however, in some cases, in my hands failed completely, and I have had to apply other means of support The use of a plaster of paris corset, as recommended by Dr. Sayre, would seem to offer a cheap and efficient means of treatment for this disease. My own experiecne in it is too limited to enable me to speak definitely of its value.

The modern modes of treatment of hip disease by extension and separation of the joint surfaces, are undoubtedly correct in theory. Practically they often fail from the inability of patients to endure the pressure of the counter-extending bands, or the irritation of the adhesive plaster on the skin. I have overcome these difficulties with well-to-do patients sometimes by having them use a variety of splints, which would have different points of resistance. By alternating a Sayres' splint with Taylor's or with a crutch-shaped splint, a patient may obtain relief from the irritation produced by perineal pressure. Where adhesive plaster has produced an undue amount of irritation, the extension may be made for a short time by attaching the lower end of the splint to the sole of a high shoe. This kind of extension however pulls too severely upon the ligaments of the knee to be endured for a great length of time. A great practical objection to the treatment of hip-joint inflammations, by splints, is its expense. Even the first expense of such an instrument is a considerable burden for poor people, but when to that is added the cost of repairs,

and eventually, if abscesses occur, that of a new splint adapted to the further progress of the case, the treatment has often to be abandoned for want of means. I am confident that were the professional public opinion as to the value of this treatment of hip disease to be decided by surgeons in general practice, instead of orthopœdists by specialty, the verdict would be that it was highly unsatisfactory and that as yet no treatment has been devised which meets the actual necessities of the people. The plea which specialists advance that such cases ought to be sent to their institutions for treatment will not bear criticism, for the rich who have plenty of means can be treated at home. It is the poor who can not afford even the cost of splints, not to speak of the expense of maintenance in expensive orthopœdic asylums, who furnish the great mass of these cases. Where abscess and ulceration has taken place, I can not too highly commend the dictum of Dr. Sayre, that a surgeon ought not to wait many weeks, if improvement does not take place, before excising the diseased bone. Not but that such cases will frequently eventually recover under the tedious and pains—taking application of appropriate instruments, but the recovery is purchased at the expense of an enormous amount of vital force. Excision of a carious hip-joint, if undertaken at an early period of the disease, is by no means so shocking an operation as is usually supposed. There is no great shock experienced by the system in cutting through bone which has become soft and friable by disease, and if the statistics of the operation are bad, it is, I am convinced, because surgeons have foolishly postponed its execution until the kidneys and other viscera have become diseased and the patients have become nearly moribund.

The removal of the diseased bone is, with patients of unimpaired constitution, a relief from suffering and exhausting suppuration. The wound usually heals in a few weeks, and the patient is in the end infinitely better off than if his recovery had been prolonged through many months of wretchedness and pain, in order to escape the much-dreaded operation.

Chronic knee-joint inflammations are even more to be dreaded than hip joint disease. It is even more difficult to cure and

includes very many more patients of adult age. The treatment by extension has in my experience been not at all satisfactory. Neither is there the same necessity for extension as in the hip-joint, for while the powerful muscles around the latter joint, by their reflex contraction, jam the two small opposing surfaces of the joint into violent contact, the knee is comparatively independent of such influences. It has, in the first place, very large surfaces, over which any such force is distributed—and, in the second place, the reflex irritation of those muscles of the ham which alone seem to suffer in disease of this joint, do not tend to force the joint surfaces together, but as is well known, to pull them apart, causing a spontaneous partial dislocation of the knee backwards,—so that while we apply extension in the hip to relieve a cause of inflammation, namely the pressure produced by muscular contraction, we need in the knee to use it for the sole purpose of preventing deformity. It is furthermore not possible in the early stages of joint disease to separate the joint surfaces by extension. The ligaments are unyielding and only give after they have become softened by disease. It is my belief that a plaster bandage and abstinence from walking on the foot will do all for such cases that can be done by an extension apparatus. Excision of this joint is of more doubtful propriety than of the hip or ankle, but is followed by sufficiently numerous recoveries to warrant its attempt when other means have failed.

I have failed utterly in the application of extension apparatus to the ankle. A plaster bandage producing absolute rest and equable compression is to my mind the best mode of treatment. If the diseases run on to suppuration, the early evacuation of the pus, the removal of all diseased bone and the passage of setons through the wounds seems to be the best mode of treatment.

The treatment of club foot and allied deformities ought not to pass without notice. Some surgeons have taken great glory to themselves, because they have succeeded in stretching the tendo achilles, and thus avoiding the terrible operation of tenotomy. To me, this kind of glorification seems very absurd. The operation of tenotomy is one of the simplest in all surgery,

and is rarely followed by any ill results whatever. Now in new born infants, the tendon may often be stretched without any difficulty whatever, and the deformity cured by very simple means; so also with acquired cases of short standing. But with congenital cases of two or three years old, the stretching of the tendon is a very long, very tedious, and very painful process, a process which must cause more injury to a child, twenty times over, than the simple subcutaneous division of the contracted structure. The actual ends, accomplished by the loud blasts, which some surgeons have seen fit to issue against this little operation, have been the injurious postponement of the cure of such deformities to a period when the bones had become altered in shape, the ligaments contracted and dense, and the paralysis, if such exist, confirmed and incurable. It is a well established fact that club-foot is usually a result of paralysis. One of the first indications therefore of treatment should be the recovery of those paralyzed muscles. Their long-continued extension, kept up by the contracted conditions of their opponents, is a great hindrance to their recovery. Sound pathology would therefore indicate the necessity of speed in overcoming this contraction, and there is no method so speedy as tenotomy. The treatment of these deformities by such methods as have been recommended by Prince and others, in which apparatus has to be daily adjusted to the foot by the surgeon himself, or a skilled assistant, is out of the question with the general practitioner. It is easy to say that time ought to be of no consequence compared with the cure of the case, and few men have the hardihood to oppose an assertion which would seem to be dictated by considerations of humanity. But in fact time is of great importance to the practitioner of medicine. There are but twenty-four hours in the day, and no man of extensive practice can afford to give too great a portion of time to a single patient. Besides, patients themselves can rarely afford time for daily treatment, and methods, which require it, can never be of general avail. A similar criticism might be made upon all of those refined methods of treatment, by which surgeons undertake to arrange cords for traction in the direction of the paralyzed muscle. Elaborate

and complicated shoes can never work in general practice, for a surgeon, who is not a special orthopœdist, requires what has not yet been invented, a simple method of treating club-foot, and a simple shoe, which will be sufficiently effective, and yet which can be readily made by a village shoemaker and as readily put on by the father or mother of the patient.

Mr. President and Gentlemen—I have tried in this paper to illustrate the principle, which seems of late years to have been almost forgotten in our surgical practice, namely, that time is of the utmost importance in the cure of diseased conditions. It is not an indifferent matter whether a child recovers from hip disease in three months or three years, or whether a club-foot is brought in proper shape in four weeks or twenty. Speedy cures mean often more perfect cures than delayed cures, for delay in very many cases causes secondary troubles, which may eventually kill the patient. In all cases it renders it more difficult for the organism to revert to its normal condition. Now, surgical operations are of that great service that they hasten the event, often curing in a few days or weeks what it otherwise would cause months or years to accomplish. I have therefore desired to call your attention to this important part, which operative surgery plays as an agent of the conservative surgeon.

Tetanus.

A PAPER READ BEFORE THE DETROIT ACADEMY OF MEDICINE.

BY N. F. BROWN, M.D.

This is a disease which has perhaps baffled the skill of the learned of the profession, in regard to its pathology and treatment, as much as any in the catalogue of diseases

Tetanus is defined as a functional affection of the muscular system, in which there is continued rigidity of the muscles, accompanied with spasms, generally of a tonic character. Tetanus frequently arises from wounds or injuries, when it is designated as traumatic tetanus; occurring otherwise, it is termed idiopathic tetanus.

The important varieties of this disease are the traumatic and idiopathic. The latter variety is seldom seen.

Tetanus occurs in all ages, from early infancy to old age, but authors generally agree that it attacks the younger members of community, and that it is usually of the traumatic character.

Climate seems to exert a decided influence upon the disease, cases occurring much more frequently in warm and tropical regions than in temperate or cold latitudes. The causes of the disease are numerous, but prominent among these are wounds, particularly lacerated wounds; and it is worthy of notice that tetanus frequently results from a very slight wound, and that extensive lacerations are not so apt to be followed with the disease. All constitutions are susceptible to the disease, but generally the subject is one of debility, yet in hot climates a robust laborer is as apt to have tetanus from a slight wound as his weaker companion.

The diagnosis is generally easily made, but the physiological effects of strychnia may be mistaken for tetanus.

When we look at a case of tetanus, we are astounded at the unknown morbific agent, or agents, which produce this terrible condition; and as post mortem examinations have thrown but little light on its pathology, we are compelled to treat the disease empirically. As I am not able to add anything to the literature of this subject, I will report upon a case of the traumatic variety which came under my care a few months since.

In the evening of the 28th of last September I was called to see a German, married, thirty-six years of age, light, wiry frame, nervous temperament, and exceedingly irritable temper.

This man, although a "hard drinker," was industrious, and could work at anything from "roust-about" to blacksmithing and carriage making, and while thus employed, tramped upon a rusty nail, which passed through the sole of the shoe and entered the great toe, passing through close to the bone. After removing the nail he bathed the toe with cold water, and as the wound was not painful, continued work, and after one day the discharge ceased, the wound closed up: but on the fourth day it became painful and slightly inflamed, and on the fifth day he complained of aching in the lower extremities and "stiffness" in the neck and back.

In the evening, when I called, I found him sitting in a chair, perfectly rational, but quite sensitive and anxious; complained some of sore throat, but muscles of the face were not yet affected, but movements of the body caused great pain in the posterior muscles of the neck and back.

I gave chloral and bromide of potassium every hour in doses of twenty grains, but he was not able to take more than three doses, as trismus took place shortly after taking the third dose. In the morning I found him in true tetanic spasm, and all the muscles of the trunk and extremities seemed to be involved, and the body inclined to opisthotonos, the rigidity of the muscles being so severe that the body could have been wholly raised by lifting at either extremity. Deglutition being almost impossible, as even the contemplation of food or drink would induce severe spasm, I gave one grain of sulphate of morphia hypodermically, which had the effect of decidedly ameliorating the suffering of the patient.

He regained the use of his arms for a short time, which, previous to this, were immovable. During this time of relief considerable nourishment was taken in a liquid form, and the patient became quite cheerful, and expected to recover. He also took large doses of quinine, bromide of potassium, and belladonna during this time, but after about six hours of partial relief, the spasms became more frequent and severe, and swallowing being impossible, I again gave morphia subcutaneously, but without decided effect.

The mind of the patient continued perfectly clear, but the suffering was indescribable, and continued till the fifth day, when there was considerable diminution of pain and spasm, lasting about one hour, when the patient gave a terrible shriek, the body assuming the position of emprosthotonos, which continued a few moments, and death came to the relief of the sufferer.

A Case of Division of the Tendo Achillis.

BY ROBT. F. NOYES, M. D., PROVIDENCE, R. I.

Mr. X., aged 55, had the misfortune upon Oct. 14, 1876, to sever with an adze, the great tendon formed by the gastrocnemius and Soleus muscles. I was at once dispatched for, and upon arrival found a gaping wound, with an inch intervening between the superior and inferior portions of the cut tendon. Knowing the power of retraction of the muscles implicated, I deemed it inexpedient to attempt the approximation of the ends of the tendon by main force.

I flexed the leg upon the thigh, and extended the foot upon the leg, and brought together with one or two stitches the lips of the gaping integuments. Light dressing were now applied; the position rigidly maintained by means of a slipper, from the heel of which extended a cord to be fastened to the thigh joint above the knee. The wound healed by granulation in six weeks, when the patient was allowed to move about upon crutches for six weeks longer. Then one crutch was dropped, and after this a cane was employed—when to-day, May 1, '77, he may be seen in the streets walking so well that close attention is required to appreciate the slight inability.

The division of the tendon, the retraction of the muscles, and the healing of the wounds by granulation, present no phenomona of particular interest. The treatment too was simply rational in its character. Flexion complete and continuous must be maintained. That nature should be kind enough to strongly unite the cut ends of the tendon without inflicting upon its periphery adhesions so strong as to interfere with the action of great muscles of the calf is perhaps worthy of a passing thought. The material by which the ends of tendons are united is analogous to, but not identical with the tendon itself. Adams and Padget have demonstrated that the bond of union is fibrous in its character, and that it is formed of some elasticity. Hence in large tendons, it is necessary that nature shall have completely performed her duty before a strain is brought to bear upon the tendon. To obviate elongation my patients was required to wear a high heel upon his boot.

Reports of Societies.

Michigan State Medical Society — Eleventh Annual Meeting.

REPORTED BY THEO. F. KERR, M. D.

FIRST DAY—MORNING SESSION.

BATTLE CREEK, May 9, 1877.

The Society assembled in the Opera House, and was called to order at 10:30 o'clock by Vice-President Foster Pratt, who presided in the absence of the President, Prof. Abram Sager.

Prayer was offered by the Rev. L. H. Pearce.

Mayor Austin then extended the hospitality of the city to the Society in the following

ADDRESS OF WELCOME.

Mr. President and Gentlemen of the Michigan State Medical Society:

It affords me much pleasure to represent the city of Battle Creek before you to-day, and express our sense of the honor you confer upon us by holding your eleventh annual meeting in our city.

We appreciate the importance of all such gatherings for the advancement of science and art, where thought clashes with thought and mind with mind; where the experience of wise observers and patient students widens the range and enriches the domain of investigation; but more especially do we appreciate this assembling of those who daily labor to prevent or cure our bodily ailments; who strive to reduce the sum total of human suffering to its minumun; who brave the dangers of contagious disease when others falter and desert us; for whom the midnight storm has no terrors when human agony cries for help; whose flag secures immunity from attack on every field of battle, be it among civilized or Christian, Cossack or Turk. As a medicine man and healer, Dr. Livingstone commanded the admiration and awe of the untutored natives of Africa, rather than as an explorer.

Nor can we consider yours a profession likely to be adopted by the ultra ambitious man. Does a man desire wealth—commerce may employ his energies and gratify his desires; if he seeks fame, the bar opens a road travelled by many a successful aspirant; but you have chosen a profession yielding only a modicum of either and whose highest reward is in the satisfaction of enjoying our confidence in the closest social relations,

tendering us your sympathy, diminishing the sum of our sorrows, ministering to our comfort and relieving our suffering.

So long as man exists, so long will he cling to life and so long will he revere him whose vocation it is to postpone as long as possible what man considers as the evil day of his departure.

But while we gladly welcome you as members of this ancient and progressive, noble and ennobling profession, candor compels us to say that if from lack of business or other causes you are dissatisfied with your present locations, we could not advise you to take up your permanent residence in Battle Creek, not only because it is possible to have too much of a good thing, but because we are a provokingly healthy people.

You will observe a few care-worn, pensive, woe begone appearing people in our midst, but with your usual discernment you will conclude that they are our resident physicians, blue and heart-sick, poor and discouraged, at the determination of our people not to be sick. We bespeak for them your cordial sympathy.

Permit me, gentlemen, again to express the pleasure it affords us to greet you and to tender to you the freedom of the city of Battle Creek, and the hospitalities of her citizens whom I have the honor this morning to represent.

Roll call by the Secretary followed, and showed a fair attendance.

On motion, the reading of the minutes was dispensed with.

Dr. E. Cox, Chairman of the Executive Committee, reported an order of business, printed copies of which were in the hands of the members, providing for a two days' session. He also reported that the Opera House was secured free of charge, and read two communications, one from the Secretary of the School Board, inviting the Society or individual members thereof to visit the High School at their pleasure, the other from Shephard, Nichols & Co., inviting the Society to visit their large manufacturing establishment.

The report was accepted and adopted.

The President announced the following temporary Committee on Admissions: Drs. G. K. Johnson, J. B. White, Wm. Brodie, D. Nims, E. Twiss.

The following gentlemen having been proposed for membership and approved by the Committee, were elected:

O. C. Lyon, Tekonsha; A. G. Sinclair, Detroit; A. S.

Snow, Laingsburg; Theo. F. Kerr, Detroit; C. H. Hammond, Ionia; A. W. Alvord, Clinton; J. H. Kellogg, Battle Creek; G. C. Pease, Fulton; J. H. Montgomery, Marshall.

Adjourned to 2:30 P. M.

AFTERNOON SESSION.

Vice-President Pratt in the chair.

Minutes read and approved.

Dr. Brodie, in a neat speech, in which he paid a high tribute to his early labors for the profession, nominated for honorary membership Dr. A. S. Leete, of Romeo, and moved that his dues be remitted. The motion was carried, and the Dr. was elected by acclamation.

SECRETARY'S CORRESPONDENCE.

E. B. Smith & Co., Detroit, publishers of the DETROIT MEDICAL JOURNAL, submitted, in writing, a proposition to publish the transactions and papers of the Society in successive numbers of the JOURNAL, and when completed to issue the same in pamphlet form, uniform with previous editions of the transactions, for the sum of two hundred and fifty dollars. For this amount, and without any further charge, they would guarantee to every member of the Society, whose dues for this year were paid, a copy of the transactions in pamphlet form, and a copy of the DETROIT MEDICAL JOURNAL for the balance of the year.

On motion of Dr. Brodie, the proposition was referred to a committee of three, together with the Finance Committee.

A letter from Prof. McLean, of the University, was read, in which he expressed his repudiation of, and withdrawal from, the Society.

On motion, the letter was laid on the table.

Letters from the Union Medical Society of Wayne, Washtenaw and Oakland, Kalamazoo Medical Society, St. Joseph Valley Medical Association, and the Saginaw City Academy of Medicine, were also read, stating that those organizations endorsed the proposed amendment to the constitution offered by the "Committee of Nine" at the last meeting of the Society.

A letter from the Branch County Medical Society stated that the proposed amendment was not endorsed by that society.

Communications from the Maine Medical Association and the Fountain County, Indiana, Medical Society, endorsing the spirit of the proposed amendment, were also read.

On motion of Dr. Brodie, the two latter communications were laid on the table.

The following telegram was at this moment handed the Secretary:

MADISON, WIS., May 9, '77.

Geo. E. Ranney, M. D., Secretary Michigan State Medical Society:

The Wisconsin State Medical Society, in session at Madison, sends greeting to the Michigan State Medical Society in session at Battle Creek, and congratulates it upon its honorable and advanced position in the cause of medical science. J. T. REEVES, M. D., *Secretary.*

On motion of Dr. Brodie, the Secretary was instructed to reply to the dispatch, acknowledging its receipt and extending the compliments of this Society in return.

The following reply was sent:

BATTLE CREEK, May 9, '77.

J. T. Reeves, M. D., Secretary Wisconsin State Medical Society:

The Michigan State Medical Society cordially reciprocates your fraternal greeting, with best wishes for your medical prosperity.

GEO. E. RANNEY, M. D., *Secretary.*

The Secretary then made his report, from which it appeared that there were 274 members of the Society, two having died and two having resigned during the last year.

[Twenty-nine members were added during this session, making the present total membership 303.]—REP.

The Treasurer reported that the receipts for the last year had been $594.00, and the expenditures $355.49, leaving a balance on hand of $238.51.

On motion of Dr. Brodie, the reports were referred to the Finance Committee.

The chair announced the following committee to consider, together with the Finance Committee, the proposition of E. B. Smith & Co., viz.: Drs. Geo. E. Ranney, Jas. A. Brown and B. Barnum.

Dr. Inglis, of Detroit, then read the first volunteer communication of the meeting, entitled "Small-Pox in its Medico-Legal Aspects."

The author advocated compulsory vaccination by the State and the more thorough enforcement of laws providing for isolation. He exhibited statistics showing the almost complete immunity from small pox enjoyed by the British army, in which compulsory vaccination is universally enforced. In a clear and forcible statement, he showed what a farce the laws providing for isolation were, and pointed out the ridiculousness of the "penny wise, pound foolish" method of fighting the disease followed out in Detroit. To allay the just fears of the people concerning the pernicious effects of vaccination, only bovine virus should be used.

On motion, a vote of thanks was extended the author, and the paper referred to the Publication Committee.

Dr. Brodie, of Detroit, said he thought the paper a very good one—in theory, but it was very impracticable. However, if this Society proposed to favor compulsory vaccination by the State, the State should be asked to furnish the means of carrying out its own provisions. Mr. Baker had brought before the Legislature a bill requiring the Agricultural College to furnish bovine virus to the physicians of the State without charge. Here was a chance to make the College useful to somebody, and he approved the passage of the bill. He would, therefore, submit the following resolution:

Resolved, That the Michigan State Medical Society respectfully ask of the Legislature, now in session, the passage of the bill now pending; that the Agricultural College furnish bovine virus free of charge to the medical profession of this State, on certificate that it will be used by the receiver, and that this resolution be signed by the President and Secretary, and forwarded to the State Legislature.

Dr. Ranney, of Lansing, said that he knew how the committee that had Mr. Baker's bill under consideration felt about the matter. To their minds it was a very impracticable scheme, and they would report adversely to its passage. Besides, the bill did not propose to furnish the virus free, but at actual cost,

and this would probably be so great that nothing at all would be gained in that direction.

Dr. Jerome, of Saginaw, thought the experience of this Society with the Legislatures of Michigan should not lead us to expect anything of such a pusillanimous body. We should not, in fact, stoop from our dignity so far, and belittle ourselves so much, as to notice, in any way, a body which had never lost an opportunity to insult the medical profession and degrade its members in the estimation of the public.

Dr. Beech, of Coldwater, said that for his part he proposed to keep calling on the Legislature for proper medical legislation until they understood that we had rights we were bound to see respected, and the people had interests which must be jealously guarded. We had made the mistake of not making it apparent that what we asked of the Legislature was for the best physical, mental and moral well being of the people, and was *not* class legislation for the benefit of a would-be monopoly. When that was understood, we would have no difficulty in procuring just and necessary medical legislation.

Other brief remarks against the passage of the resolution were made, and it was then put to vote, but was lost by a very large majority, very few voting in its favor.

The following additional members were elected, having been approved by the Committee on Admissions: N. S. Lay, Allegan; J. M. Calking, Allegan; J. W. Briggs, Schoolcraft; J. W. Fiske, Kalamazoo; J. D. North, Jackson; L. C. Woodward, Paw Paw; D. C. Spalding, Lyons; J. P. Bingham, Brighton.

Dr. De Witt C. Wade, of Holly, read a paper on Puerperal Fever; or, as he proposed to call it, Puerperal Bacteræmia.

Dr. Wade believes that the presence of bacteria in the blood will fully account for all the phenomena presented by a case of puerperal fever. He showed that the conditions of the puerperal woman were such as to favor the production of bacteria in immense numbers, and their introduction into the circulation through open sinuses and solutions of continuity in the membrane lining the vagina and uterus. He explained that

an epidemic of the disease might originate in the dissecting room from the bacteria germ carried away on the fingers, and that it might be maintained by some endemic influence which caused the uterus to remain lax and flabby, and the sinsuses open. To prevent the latter condition, when an epidemic was threatened in his own practice, he began the administration of ergot during the second stage of labor, and continued its use for several days, till he thought all danger from that cause past. He maintained that the disease could be successfully combatted by throwing into the circulation a solution that would effectually destroy all bacteria, and detailed some experiments with their results to prove that such procedure had been successful in the case of living animals.

The paper was a thoroughly original one, and was referred to the Publication Committee with the thanks of the Society.

Dr. Ranney, of Lansing, offered the following amendment of the constitution:

Resolved, That the constitution be amended so as to read: This association shall be called the Michigan State Medical Society, and shall be composed of resident, corresponding and honorary members; also,

Resolved, That a new section be inserted as follows: Corresponding members may be non-residents of Michigan, and shall be elected by a two-thirds vote at any regular meeting, having been first recommended by the Committee on Admsssions; except those who having been resident members have removed from the State and belong to a local medical society where they reside, may, by paying their annual dues and complying with the other regulations of the Society, become corresponding members, and be entitled to all the rights of resident members.

Laid over under the rules for one year.

Dr. Brodie moved to take from the table the following resolution, offered by Dr. Foster Pratt one year ago:

Resolved, That this constitution may be amended in the manner following:

The proposed amendment or addition shall be presented in writing and shall lie on the table for one year, and if approved by two-thirds of the members present at a regular meeting, it shall be declared adopted.

The motion prevailed, and the resolution was then unanimously adopted.

Dr. Hitchcock, of Kalamazoo, offered the following, which had been passed by the Kalamazoo Medical Society; he had been instructed to bring the resolution to the State Society and request their action on it.

Resolved, That it is inconsistent with the spirit of our code of ethics for a member of our profession, acting as expert assistant to a lawyer, to work up a case of malpractice against an honorable and reputable member thereof, or voluntarily to give expert testimony against such a member who may have been made defendant in such a suit.

Dr. Brodie, of Detroit moved that the resolution be referred to the Judicial Council.

Dr. Hitchcock hoped the resolution would not go to a committee. The Kalamazoo Society desired an expression of opinion on this matter from the State Society in regular open session. It sometimes happened that an epidemic of malpractice suits sprung up and swept over some section of the country. Such an epidemic was now raging in Kalamazoo. As the result of a recent suit in that village, three suits for malpractice were now pending in their county court. Great wrongs had been committed and greater wrongs might follow; no one was safe; it was time that the Society put its foot on such practices.

Dr. Jerome, of Saginaw, moved to amend Dr. Brodie's motion by first taking a vote of the Society on the resolution. Several members supported the resolution in short, but very positive speeches, and Dr. Jerome's amendment was then unanimously carried. The original motion as amended was adopted.

Adjourned to 7.30 P. M.

EVENING SESSION.

Vice President Pratt in the chair.

Roll call and reading of the minutes dispensed with.

The chair, in behalf of Mrs. Sweet, presented to the society a beautiful bouquet, as a token of welcome to the city, as a memorial to her father, Dr. J. Chatterton, and as a compliment to the society.

A vote of thanks was extended Mrs. Sweet for her kindness.

Vice President Eugene Smith was called to the chair, and Dr. Pratt delivered the annual address.

The speaker eulogized the President, Prof. A. Sager, and paid a high compliment to his professional attainments. The address was a plea for the abandonment of medical teaching by the state and its control by the medical profession. They alone are capable of solving wisely the many problems which must arise in the endeavors to advance medical science. Under our form of government the representatives of the people are too often demagogues, who have no conception of true science or its necessities, and would sacrifice the most vital interests for trifling causes, or barter them away for political preferment. It was absurd to expect anything of benefit to medicine from men swayed by such motives.

The speaker also argued in favor of a better preliminary education and longer courses of study in medical schools. These reforms could only be accomplished by a general demand on the part of the profession for their enforcement.

A vote of thanks was extended to the President, and a copy of the address solicited for publication.

The exercises were interspersed with some excellent singing by a local quartette, which very much enlivened the evening's session, and added zest to its enjoyment by the large audience of the *elite* of the city.

A motion was made to adjourn, but was waived on motion of Dr. Johnson, of Grand Rapids, to request Dr. Eugene Smith, of Detroit, to read a paper on "Visual Troubles during Pregnancy and Parturition," which he had with him and could read in a few minutes.

The paper was read and referred to the publication committee. Dr. Beech, of Coldwater, moved a special vote of thanks to the author for elucidating many points of great interest to the general practitioner, and of much value in every day practice. Carried.

Adjourned to 9.30 A. M., May 10.

SECOND DAY—MORNING SESSION.

Vice President Pratt in the chair.

Reports of special committees being in order, Dr. Jenks, of Detroit, made his report "On Some of the Surgical Diseases of Women," choosing for his subject "Plastic Operations in the Vagina with especial Reference to the Operation for partially ruptured Perineum."

The author gave a brief history of the operations for the cure of this condition and exhibited drawings to show the relations of the rectum and vagina with the perineum intact and after partial or complete rupture had taken place.

He then described an operation for the cure of partially lacerated perineum, original with himself, substantially as follows: The patient is anæsthetized and placed on the back, and two assistants hold the labia apart. The operator passes two fingers of the left hand into the rectum, and spreads out flat upon them the recto-vaginal septum. In his right hand he takes a pair of scissors, sharp pointed, slightly curved, and passes them beneath the mucous membrane at a point where it meets the skin of the left labia majora. A portion of the mucous membrane on that side is dissected up without once allowing the point of the scissors to emerge, and the same process is continued right across the median line, and the membrane on the right side dissected up in the same manner, until the point of the scissors are brought around to the place of entrance. No blood flows during this procedure except where the handles of the scissors pass beneath the mucous membrane. The part dissected up is then removed with round pointed scissors and should resemble in shape a butterfly with the wings spread, the head of the insect pointing upwards in the vagina. Sutures are then applied, and the operation is complete.

It is sometimes necessary to narrow the anterior wall of the vagina for cystocele as the result of laceration of the perineum, and this should be performed but a short time before the operation on the perineum, as otherwise the same condition soon results again for lack of support. Instead of a V-shaped piece

the author removes a T-shaped piece, the arms being at the junction of the uterus and vagina.

Emmett's operation for lacerated cervix was briefly commended.

All these operations in the vagina are beneficial from another point of view, viz., they result in much less cicatricial tissue than lacerations left to heal of themselves, and so are far less liable to cause the irritations and neuralgias which often follow the latter procedure.

The paper was referred with thanks.

Dr. Dunster, of Ann Arbor, reported "On the Extension and Use of the Forceps," making "A Plea for the more frequent use of Forceps in shortening the second stage of Labor." His plea was that by an early use of the forceps we frequently can save fœtal life and sometimes maternal. It was in the second stage of labor that fœtal life was threatened most frequently, and it was then that the forceps could be properly used. It saved the mother pain, and thus conduced to a quick recovery. He controverted the idea that pain was physiological and should not be interfered with. Without doubt long continued pain depressed the system and retarded recovery.

Statistics extending over a long period of years, taken from the records of British hospitals, were exhibited, showing the gradual increase in frequency of the use of the forceps, a corresponding decrease in the operation for craniotomy, and the consequent much lower mortality to both mother and child. The paper was referred to the Publication Committee with the thanks of the society.

Dr. Jenks, of Detroit, said he heartily endorsed the views presented in the paper. The fear of the forceps arose from the old maxim, "Meddlesome midwifery is bad." It was no argument against the forceps that harm is sometimes done with them. It was rather a plea for better education in their use. When the os was dilated and the waters were discharged, there were three things the obstetrician could do—wait on nature, administer ergot, or apply the forceps. But nature destroys many children, causes fistulas, lacerations, inflammations; ergot has

out-Heroded Herod—has destroyed more children than that monster ever did. Then use the forceps, for there was no danger in emptying the uterus slowly, nor did the worst cases of lacerated perineum result from the use of the instrument.

Dr. Brodie, of Detroit, said that when he began practice in Detroit there was great opposition to the use of the forceps. The consent of the clergy had always to be secured before the instrument was applied. Now, perhaps, he used them twice in every five deliveries. There was no danger from the forceps in the hands of an educated man.

Dr. Foster, of Otsego, spoke in favor of a more frequent use of the forceps. During the past fifteen years he had used them more frequently than before, as he had been taught to avoid their use. He believed he had better and quicker recoveries now than formerly.

Dr. Hitchcock, of Kalamazoo, related the case of a woman whom he saw delivered when he was a student in Bellevue Hospital. When the child was brought forth a ring was observed encircling the neck, which proved to be the neck of the uterus. He had heard Prof. Gilman's teachings in the College of Physicians and Surgeons, N. Y., who, when he had finished his lecture on the use of the forceps, used to fling them across the amphitheatre to show the estimation in which he held them. He had made up his mind, even then, to use them more frequently, and both his experience and observation led him to believe the results most excellent, when used early and intelligently.

The following were elected members on recommendation of the Committee;

A. M. Stephenson, Adrian; W. W. Cambell, Mason; Donald McKay, Prairieville.

The Judicial Council submitted the following report:

1. In the matter of the charges of Dr. J. E. Jerome against Dr. B. B. Ross, of East Saginaw, we find that the charges have been sustained, and as Dr. Ross is not a member of the local society in Saginaw, to whom the charges have been referred, we recommend that the name of Dr. B. B. Ross be stricken from the roll.

2. In the matter of the resolution presented by the Kalamazoo

Medical Society, referred to this council, the same is adopted as an ordinance of this society.

3. In the matter of charges against Dr. Fairchild, formerly of Niles, but now of Detroit, the same have not been sustained.

4. In the matter of the complaint of the Bay City Medical Society versus the Regular Bay County Medical Society, we find that the State Medical Society have no jurisdiction.

The Finance Committee submitted a report approving as correct the annual reports of the Secretary and Treasurer, and recommending the usual appropriation of $100,00 for the annual salary of the Secretary. They also recommended that no change be made in the manner of publishing the minutes which was understood as a rejection of the proposition of E. B. Smith & Co.

The Committee on Necrology reported two deaths during the year, Dr. H. S. Cheever, of Ann Arbor, and Dr. Zenas Bliss, of Grand Rapids.

Dr. Thomas, of Bay City, offered the following resolutions and moved their adoption:

WHEREAS, This and all other medical societies recognized by and entitled to representation in the American Medical Association are bound to observe its code of ethics; and,

WHEREAS, The American Medical Association at its session in June, 1876, adopted the following resolution:

Resolved, That members of the medical profession who in any way aid or abet the graduation of medical students in irregular or exclusive systems of medicine are deemed thereby to violate the spirit of the code of ethics of the American Medical Association; now, therefore,

Resolved, That The Michigan State Medical Assocration cordially indorse this resolution of the American Medical Association, and accept it as an authoritative interpretation of the ethical code.

Dr. Brodie moved to lay on the table. Lost.

He then moved to lay on the table till two o'clock. Lost.

He then called for the yeas and nays on the last vote, but the call was not sustained.

The resolutions were then adopted with few dissenting votes.

Dr. Carstens, of Detroit, submitted the following resolutions which were unanimously adopted.

WHEREAS, There is a bill before Congress to remove the tariff on Quinine, and,

WHEREAS, By the tariff a few men are enabled to get up a corner on Quinine and increase the price of that drug, and,

WHEREAS, Especially the poor and the sick suffer when Quinine is very expensive, as the consumer must pay for the drug whatever the price, there being no reliable substitute for this extensively used therapeutic agent:

Resolved, That it is the sense of the Michigan State Medical Society that the bill to remove the tariff on Quinine, now before Congress, should pass that body.

Resolved, That the Secretary be instructed to send a copy of these resolutions to the Senators and representatives in Congress from this State.

Dr. Jerome, of Saginaw, called from the table the famous amendment to the constitution proposed by the "Committee of nine" last year.

It was immediately moved to lay on the table for another year, which was carried, no disposition being manifested to discuss a question which had been referred to the American Medical Association.

Dr. Fiske, of Kalamazoo, moved to take from the table the letters from Maine and Indiana, read yesterday, and to instruct the Secretary to return to those organizations, our thanks for their manifestations of fraternal feeling.

Dr. Brodie opposed the motion, and characterized the letters as "impertinent interference in our home affairs;" but the motion, nevertheless, prevailed by a large majority.

Dr. Mar offered the following amendment to the constitution which was laid over for one year, under the rules:

"Evidence of two years reputable practice after graduation from a regular medical college, or of five years' reputable practice without graduation, as proof of established professional character shall be furnished by all applicants for membership to this society."

Adjourned to 2 P. M.

AFTERNOON SESSION.

Vice President Pratt in the chair.

Dr. Jerome proposed for honorary membership, Dr. O. C. Comstock, Marshall, and he was elected by acclamation.

Dr. Ranney, of Lansing, proposed for honorary membership Dr. John Day, President of the Australian Medical Association, and Dr. Wm. Neil, honorary Secretary of the same and editor of the *Australian Medical Journal.* They were elected by acclamation.

Prof. McLean asked if he was the person referred to in the morning papers, as having offered his resignation as a member of this society. Being answered in the affirmative, his letter, on motion, was taken from the table and the resignation withdrawn.

The chair announced the following as members of the Committee on nominations. Drs. J. B. White, Saginaw; Jas. A. Brown, Detroit; E. Twiss, Union City; E. B. Ward, Jackson; J. Andrews, Paw Paw.

On recommendation of the Committee on nominations the following applicants were elected members; Wm. Russell, Ann Arbor; Katie Lindsay, Battle Creek; J. M. Rankin, Richmond.

The election of officers being in order an informal ballot was ordered, and Drs. Brodie and Foster were appointed tellers.

Vice President G. K. Johnson was called to the chair.

Pending the announcement of the vote, Dr. Jenks, of Detroit, moved that the nominating committee appoint the delegates to the American Medical Association. Carried.

Dr. Brodie announced as the result of the ballot, 54 ballots cast, of which Foster Pratt received 32, G. K. Johnson 6, E. Cox 5, scattering 11.

On motion of Dr. Brodie, the ballot was declared formal and Foster Pratt was announced as the President elect for the ensuing year.

He briefly thanked the society for the honor thus conferred upon him and again assumed the duties of the chair. Three

members of the Judical Council were then elected by ballot in place of Drs. Beech, Nims and Johnson.

Pending the announcement of the vote, Dr. Jerome, of Saginaw, presented the following resolution, which was unanimously adopted on a rising vote :

Resolved, That this society give their expression of grateful remembrance to the many private and professional virtues of Prof. Abram Sager, M. D., our late President, during the many years of his unblemished professional life, and deep sympathy for him in his present enfeebled condition of bodily health."

Dr. Brodie announced as the result of several ballotings that Drs. Johnson, Nims and Cox, were elected members of the Judical Council for three years.

Dr. Jerome, of Saginaw, moved that the " Committe on Medical Legislation" be discharged, and in support of his resolution made the following speech :

During all the years of the existence of this society an effort has been put forth in good faith to establish and maintain a friendly and fraternal relation with the Legislature of our State, believing that mutual good would be derived from comity of action. But I may safely say that instead of like kindly sentiment being reflected from that body, no opportunity has been lost to characterize and humiliate the profession of medicine by the Legislature of Michigan.

The usual method and opportunity of this display has been on the application of the Regents of the University for money to meet the annual wants of that institution for educational purposes—not medical—as that department was self-supporting. The constitution of our State has wisely prohibited the Legislature from any governing influence over the University, committing it to the care and guardianship of a Board of Regents, selected from men of high educational attainment, who are supposed to better understand the wants of a higher grade of culture than the common schools with which our Solons were left to grapple at will. If we pass over former Legislatures and come to consider the present one, we find a unique body, not inaptly denominated by the little breezy *Evening News*, the " Lansing Grammar and Spelling Schools."

The head-center of the spelling school, so far as relates to our profession, is one C. B. Mills, who, I understand, to be one of the " hard-shell " itinerating clerical persuasion, with a short-hand medical

attachment, from Tuscola, with whom to know less than all the world beside would be a mortal sin.

In his report to the spelling school on medical matters, he descants thus, as we find in the *Legislative Journal* of March 10th: "And when it is considered that the great majority of the members of these associations that are not interested in other rival institutions, are men whose medical culture bears no comparison with that provided for in the University, the significance of this opposition is apparent." Having delivered himself of this gorgeous proposition, as if to tone down a little and even up with the University, least they might put on some additional airs, he very kindly makes mention of the arrangement made by the doctors of the University, for the care and general management of the hospital under their charge, and particularly relative to their nurses; that if "none can be found who can be trusted among Americans, it is respectfully suggested that Chinamen be employed, or Hottentots might be imported for that service." The talent of this mixed body is so diversified, however, that they need not confine their labors exclusively to the higher development in medical literature, consequently have found leisure to grapple with the great question of Sabbath desecration, so frequently indulged in by the poorer classes, and more particularly by our German population, who have attempted surreptitiously to economize their time by getting married on the Sabbath day, and now find to their utter consternation that such a thing could not be did at all. Poor things! Happily, however for this class, the bill of rights adopted by the grammar and spelling schools, does not specify whether the Christian or the hard shell Sabbath is the one intended.

We next find the "head center" on a bull-dozing mission to the Regents of the University, whose total subserviency is demanded, endorsed by eighty-three members of the Lansing mixed schools, the results of which are to be known hereafter.

In one of the particular moods of this august body, it was discovered that in some way for cousins to get married begat idiots; upon which practice they deemed it their duty to affix their great seal of condemnation. On this branch of their duty the *N. Y. Times* of April 25th, has commented quite to our liking, which we beg leave to read:

"MICHIGAN COUSINS."

There may be an exceptional desire on the part of the people of Michigan to marry their cousins, but the introduction of a law into the Legislature of that State prohibiting the marriage of cousins does not prove that such is the case. All the old fashioned Bibles—those six inches in thickness which were used to raise the youngest child to the level of the family dinner table—expressly forbid a man to marry his grandmother; but it is

notorious that at no time since the beginning of the Christian year has there been any general desire on the part of grandchildren to marry their grandparents. The true meaning of the Michigan bill undoubtedly is, that some rich legislator, with a willful daughter and a worthless nephew, desires to have a legal pretext to prevent the young people from wasting his kerosene by sitting up till midnight in his front parlor.

The argument that cousins should not marry is based upon the alleged fact that the offspring—which is a delicate way of alluding to children—of such marriages are universally idiots, with deaf, dumb and blind attachments. The statistics of our various asylums show that among the patients whose minds and senses are not in good running order, are frequently found the offspring of cousins. Of course, if cousins intend to act in this inexcusable way, they ought not to be allowed to marry. The argument is an excellent one, were it only based on facts; but, as it is not so based, it is rather more worthless than the theories as to Brooklyn slums and the imaginary confessions which the World delights to publish.

Of course, there are a certain amount of professional idiots whose parents are cousins. So, too, we find in our idiot asylums patients who owe their origin to marriages between Presbyterians and Methodists. It is clear that, if the former fact justifies a law against the intermarriage of cousins, the latter requires a law forbidding marriage between two opposite and probably equally excellent sects. Moreover, idiots have been produced in quantities far in excess of the demand by parents having no natural or religious affinity. If the Michigan Legislature really wants to strike an irresistable blow at idiots, it should forbid marriage entirely. Surreptitious idiots would, of course, from time to time make their appearance within the borders of the State, but the regular sources of supply would be cut off, and the people would have to import their legislators from other States.

If the cousins of Michigan are wise, they will collect statistics showing that not one of the members of the Michigan Legislature is the offspring of cousins, after which the Legislature can no longer with any consistency maintain the preposterous theory that idiots are the results of cousinly intermarriage.—[*New York Times, April 25, 1877.*]

For these and kindred reasons, Mr. President and gentlemen of the society, I think that self-respect demands that we discontinue our efforts to fraternize with the Legislature, and therefore hope the resolution will prevail.

The resolution was unanimously adopted amid much enthusiasm.

Resolutions were then adopted, of thanks to the proprietors

of the opera house, for the free gift of its use to the society; to the representatives of the public press, for their excellent reports; to the physicians who tendered receptions to the society, for their hospitality; to Mrs. Dr. Garcia, for the floral decorations of the hall.

The Committee on Nominations made the following report, which was adopted without dissent:

First Vice President—John B. White, Saginaw.
Second Vice President—T. A. McGraw, Detroit.
Third Vice President—H. B. Barnes, Ionia.
Fourth Vice President—T. H. Briggs, Mattawan.
Recording Secretary—G. E. Ranney, Lansing.
Treasurer—Gordon Chittock, Jackson.
Delegates to the American Medical Association.—G. K. Johnson, Grand Rapids; Foster Pratt, Kalamazoo; J. H. Jerome, Saginaw; S. C. Woodman, Paw Paw; E. W. Jenks, Detroit; W. F. Breakey, Ann Arbor; J. W. Hagadorn, Lansing; J. P. Stodard, Albion; E. B. Ward, Laingsburg; E. Cox, Battle Creek; E. S. Dunster, Ann Arbor; E. W. Topping, De Witt; O. E. Herrick, Greenville; B. Barnum, Schoolcraft; James E. Ferguson, Bangor; E. Twiss, Athens; C. W. Backus, Three Rivers; M. W. Tomlinson, Battle Creek; H. F. Ewers, Union City; C. H. Lewis, Jackson, Dwight Nims, Jackson; Wm. Brownell, Utica; C. V. Tyler, Bay City; David Inglis, Detroit; H. O. Hitchcock, Kalamazoo; F. K. Owen, Ypsilanti; — Montgomery, Marshall; H. C. Wyman, Blissfield; T. J. Langlois, Wyandotte, and A. G. Sinclair, Detroit.

The Committee on Admissions reported Dr. D. C. Hawkshurst, of Battle Creek, eligible for membership. Dr. Jerome asked if the applicant were not a graduate of Michigan University. Being answered in the affirmative, he said that he opposed his election on the ground that a resolution respecting his professional standing and that of his whole class was now pending before the State Society, and before the American Medical Society. Until that was settled he moved to lay the application on the table.

Dr. Brodie replied that the applicant was among the first at this meeting, and his name was withheld just because this resolution on the University question was pending, but the society had laid the matter on the table for another year, and

there was no guarantee that it would not be so disposed of for an indefinite period. Until it was authoritatively settled no one could be justly excluded on that ground.

Dr. Hawkshurst was admitted on a rising vote by a considerable majority.

Dr. Carstens, of Detroit, called up his amendment, offered last year, providing for the appointment of committees to furnish and arrange papers for discussion at the annual meetings of the society, and the same was adopted.

Dr Brodie moved that when the society adjourn, it adjourn to meet in Lansing. Carried.

Dr. Dunster, of Ann Arbor, moved that the secretary be instructed to publish with the transactions of this meeting, a copy of the constitution and by-laws. Carried.

The president was authorized to call the next meeting of the society so as not to conflict with the meeting of the American Medical Association. The president and secretary were also authorized to appoint delegates to that body if its session in 1878 should be prior to that of the state society.

Dr. Hitchcock offered the following resolution, which was adopted:

"*Resolved*, That the secretary be instructed to report to the American Medical Association the action of this society and the action of its judicial council, upon the resolution introduced here by the Kalamazoo Medical Society, and request that that body, through its judicial council, take action upon the same."

Dr. G. K. Johnson, of Grand Rapids, read a paper on "The State and its Relations to Medical Education."

Dr. Johnson argued to sustain the following points:

1. The State should not undertake to teach medicine, because it is a work that should be left entirely to medical men.

2. It is wrong to tax the people in support of medical schools where all systems of practice are not represented.

3. Michigan was the first and for sometime the only State supporting a public school of medicine, notwithstanding the fact that there were already sixty-five schools in the United States supported by the profession.

4. There is no public or professional need for State schools of med-

cine, as the volunteer schools provide all the practitioners there is room for; hence it is wrong to tax the public for their support.

5. Medical education has a more normal and legitimate development when left to medical men, uninfluenced by the State or the action of its representatives.

6. The State, by giving free medical education, is drawing young men from industrial pursuits into a profession where they are not needed, the ranks being already crowded with graduates from regular schools.

7. Already other schools and systems of medical education are clamoring for admission to the State University, and if the State continues to give free education there will be no end to the "pathys" and "isms" demanding a hearing.

The paper was referred with the thanks of the society.

Dr. W. F. Breakey, of Ann Arbor, read a paper on "The Induction of Premature Labor as an Obstetrical Procedure."

Referred with vote of thanks.

Dr. Johnson submitted the following resolution, which was adopted:

"*Resolved*, That the State should not engage in the business of teaching medicine. It should not establish medical schools with public funds, nor maintain them in whole or any part by taxation upon the people; nor should it determine by law what principles and practice shall be taught."

Dr. Dunster was called on to make some remarks on a subject of his own choosing, but declined, owing to the lateness of the hour. He was requested, by vote of the society, to furnish next year a paper on "The Topical Treatment of Chronic Dysentery," on which he had hoped to speak at the present meeting.

The secretary read the following letter:

ANN ARBOR, May 9, 1877.

To the Michigan State Medical Society:—From his couch of sickness the undersigned respectfully sends greetings and begs to offer the following sentiment, viz.: That, with charity for all, he trusts that your deliberations will be strenuously directed to the maintenance of an unequivocal professional purity, and the advancement of legitimate medical sciences.

But no profession in the latter can atone for the loss of the professional integrity and honor.

I have the honor to be
Yours, very respectfully,
A. SAGER,
President elect.

Adjourned *sine die.*

CONCLUSION.

By those who have attended in years past, the present was considered one of the most successful meetings in the annals of the society. The papers presented were of a high order of merit, and some of them of great scientific value; the discussions were necessarily brief on account of the press of business, but the words spoken were to the point; the business was quickly dispatched, but with no undue haste; the best feeling prevailed throughout, and every one departed with their determination strengthened to subserve in every way personal preferment and selfish ambition to the cause of manly medical practice and manly intercourse with his professional co-workers.

The Wayne County Medical Society.

DETROIT, April 5, 1877.

The President, Dr. Wm. Brodie, in the chair.

Dr. P. Klein, of Detroit, having returned from Chicago, gave a description of a disease which commenced at the Madison House, in that city, about six weeks ago. Thirty cases with three deaths have been reported at this house, but none elsewhere. The patients usually complain of much lassitude, myalgia, and headache for several days, then a chill, often very severe, followed by high fever, rapid pulse, restlessness, myalgia, looseness of the bowels, mental aberration or coma, but no eruption nor sordes. A lady there had the usual premonitory symptoms for several days. She took a long walk in the morning, as was her custom, but was hardly able to get home. She had a very long and severe chill—could scarcely get her warm—followed by fever. She was semi-comatose for seven days, and then comatose till death, on the fourteenth day. The temperature was

from 104° Fah. to 107° Fah., and the pulse 120 to 160, and at times still more; very restless; and discharges involuntary. Four days before her death, her back became quite rigid, and the last two days she could not swallow. She died very quietly. The treatment was similar to that for typhoid fever. Towards the last, woolen cloths, out of hot milk, were applied to the body with temporary benefit.

For some time before the outbreak of the fever, and during its continuance, a very disagreeable odor was noticeable in the Mansion House. After much delay and many surmises as to the cause of the odor, and of the disease, the sewers were opened and found to be clogged, so that the sewer gases passed into the various parts of the house, through its numerous waste-pipes, which do not appear to have been duly provided with suitable stench-traps.

Drs. Brodie, Gustin, Richards, and others, reported similar cases which were supposed to arise from like causes. It appears that the sewer between Jefferson Avenue and Larned street, and Brush and St. Antoine streets, in this city, is not deep enough to duly drain the cellars in that vicinity. Several cases of fever—blood poisoning, similar to those in Chicago—have been observed here, and are probably due to the defective sewers.

Dr. Lichty has seen many cases of fever, similar in symptoms, to those at the Mansion House, in the Mississippi valley. They were there called typho-malarial fever, supposed to arise from stagnant water, and lasted from ten days to six weeks.

Dr. Gustin reported a case of irregular remittent fever, in which very severe chills of three or four hours duration, followed by a similar period of profuse perspiration, recurred at very irregular intervals. Quinine produced no favorable results. The fever lasted about four weeks, but presented no typhoid symptoms. He also reported the history of a patient that had been peculiarly afflicted; it having had diphtheria in January, intermittent fever in February, chicken-pox in March, and scarlatina, now in April.

W. H. ROUSE, M. D.,
Secretary.

DETROIT, April 19, 1877.

The President, Dr. Wm. Brodie, in the chair.

Dr. Leonard had seen a boy, aged three months, with a supernumerary tongue about half an inch long.

Dr. G. B. Book reported the following: A man aged 26 years, has been suffering from a mania for sweet food—pound cake being his favorite—for about two years. His appetite is good. He will eat enormous quantities of sweet cake, vomit it up, and then eat more; yet, on one occasion he fasted three days rather than eat anything but sweet food. He is very nervous, pale and dropsical in appearance. The tongue is red and but slightly coated. The urine is free, saccharine, and of high sp. grav., and his bowels are regular. He is increasing in weight but is very despondent.

Dr. Klein saw a girl aged twelve years in Canada, some years ago, who had always lived on sweetened milk. She was then remarkably fine, plump, healthy and strong. During the sugar season in the south, the laborers who eat freely of saccharine food, became fleshy, thus showing that sweets of themselves do not induce emaciation.

Dr. Mulheron reported the following cases: A lady, aged 25 years, had severe and increasing headache for three days, when she presented the ordinary symptoms of acute meningitis. The temperature was 105° Fah. to 106° Fah. Potass. bromide ergot, ice and blisters were used, but the woman became comatose, and died.

A lady had suffered from cystitis for three years. There was frequent desire to urinate, but ten grain doses of benzoic acid very promptly relieved this difficulty. He has found benzoic acid to work like a charm in cystitis.

Dr. Borrowman was attending a lady in the eighth month of gestation for protrusion of the bladder. The child is very low, but the bladder can be replaced after the recumbent position has been maintained for some time. The urine has to be removed with a catheter.

Dr. Lyster: A lady at six months of gestation had severe convulsions, but chloral hydrate suppositories quieted her some.

In the afternoon of the same day he bled her freely with apparent benefit. In the evening the arm bled freely before it was noticed, and thus rendered the patient very .weak, with irregular breathing. The labor was completed, and the woman became conscious next morning. She has been improving since, has a good appetite, but very severe headache.

A girl, aged 14 years, passed a lead pencil, 5½ inches long into, as she supposed, the bladder, about four weeks ago. There was considerable pain and some fever. Gave her quinia sulph. gr. xxiv, the day before operating. Anæsthetics were administered, and then failing to remove it, per bladder or vagina, an incision two or three inches in length was made in the abdomen through which it was extracted. Its sharpened end was directed upwards towards the liver. The girl soon recovered without peritonitis or other trouble. The pencil probably passed through the vagina in front of the womb. Deaths have been reported from introducing instruments to induce abortion.

A child of eight years had the symptoms of inflammatory croup. He used lime-water with steam atomized twenty minutes each hour, and gave three grs. quinine every 2½ hours for 48 hours with wine of ipecac, as occasion required. Portions of membrane were thrown up, and the child recovered. He used similar treatment ten years ago on a child sixteen months old, with favorable results.

W. H. ROUSE, M. D.,
Secretary.

Detroit Medical and Library Association.

MARCH 19, 1877.

Vice-President Gilbert occupied the chair.

Dr. Cleland introduced a patient afflicted with freckles.

The case was remarkable from the fact that the spots were very thickly scattered over the face and neck, and were generally of a yellow color, but there were quite a number of a dark brown color, and all were rapidly assuming this hue, threatening a permanent and very revolting disfigurement.

Dr. McGraw read a paper entitled "The Conservation of

Vital Force an Essential Element of Conservative Surgery," which was referred to the Publication Committee. [Published in this number of the JOURNAL.]

PROPHYLAXIS OF SCARLET FEVER.

Dr. Chapoton said that in a public institution with which he was connected, and containing about forty children, a case of scarlatina appeared on the 1st of February, on the 3d a second case, on the 5th a third case. The second case was a severe one. He immediately commenced the administration of the sulpho-carbolate of sodium, giving five grain doses to the smaller children and ten grains to the larger. On the 8th of the month the fourth case appeared, and was of a very severe type. On the 11th the fifth and last case—a very mild one—was reported. An attempt was made to isolate the sick children, but the isolation was not complete—there was intercourse with the rest of the house. He did not feel sure that an epidemic had been stopped by the use of the sulpho-carbolate of sodium.

Dr. Cleland remarked that in his practice all methods of prophylaxis had failed. He had faithfully tried all that had been proposed and found them wanting.

Dr. Shurly expressed a like opinion. As regards the spread of an epidemic, he believed it depended greatly on the force of the specific poison. In a mild epidemic this had a less aggressive power, and fewer children were attacked. The reverse was true in severe epidemics.

Dr. Stewart believed that isolation was the best prophylactic. Medicines were failures when used for that purpose. In deference to the wishes of the mother he once gave tinct. card. co. to a child exposed to scarlet fever, and the disease was not contracted, but no one would claim that the medicine prevented it. Oiling the patient along with the most rigid isolation was the only true and successful prophylaxis.

Dr. Connor believed a combination of sulphite of soda and carbolic acid was sometimes good. No medicine, however, was of any value which was not a perfect antizymotic. Isolation should also be enforced. In his opinion there was more danger

to the community from scarlet fever than from small-pox. It would be right to place a sign on every house where a patient lay sick with scarlet fever, and enforce a more complete isolation than is carried out with small-pox in this city, and the disease might be stamped out.

He also believed it would be a wise proceeding to expose children to scarlet fever during the prevalence of a mild epidemic. They would thus be protected against severe epidemics.

Dr. Mulheron asked Dr. C. if he thought it good practice to expose children to a mild form of scarlet fever. Would they not oftentimes contract the malignant type of the disease.

Dr. Connor replied that he believed like always produced like, all things being equal. So, if a certain number of children in like condition of health were exposed to a mild form of scarlatina they would probably have a mild type of the disease. If the facts were known, it would probably appear that children who seemed to have taken a malignant from a mild form of the disease had been exposed to the former type.

Dr. Mulheron thought the theory was a very fine one, but he did not believe it was true, in practice. He had seen a severe type of scarlatina follow a mild type in the same family, and that, too, when they had been carefully kept at home.

Dr. Cleland stated that he had attended recently a delicate, weakly child, sick with scarlatina of mild type: but a brother of the patient, a strong, robust child, was attacked by a very malignant type of the disease and died in two days.

Dr. Carrier had used the sulpho-carbolate of sodium with good effect, both internally and as a gargle. There had been no swelling of the glands and no sequelae when thus exhibited. He was not satisfied with it as a prophylactic remedy. He knew the very day when his own boy was exposed to the fever, but did not ward off the attack by the use of the sulpho-carbolate of sodium. He also knew a gentleman who purposely exposed his child to the disease, but it was not contracted, this remedy having been administered.

Dr. Stevens said he had recently attended three cases of

scarlatina in one family, the two first being of a very mild type. The third child was attacked with convulsions and died in twelve hours. Although no rash appeared he considered it a case of scarlet fever, as the child was not subject to convulsions, and there was no other apparent cause of the phenomena.

Dr. McGraw said some process of preparation for the onset of scarlet fever might be useful. Before severe surgical operations the patient was put on what is known as preparatory treatment in order to lessen as much as possibly the inflammatory processes. Robust children were often in a condition of system to favor inflammation on account of the great activity of the vital processes and would have a very malignant form of scarlet fever, while in weaker children the conditions were exactly the opposite. This would in a measure account for the different types of the disease in different children when exposed to the same contagion.

THEO. F. KERR, M.D.,
Secretary.

Correspondence.

Treatment of Croup.

CENTER, Shelby Co., Texas.
April 30, 1877.

MESSRS. EDITORS.—In the report of the Detroit Academy of Medicine (February number of your journal), I notice a discussion upon the unity and duality of diphtheria and croup, which leads me to give your readers the treatment of a backwoods country doctor. I am not prepared to say whether they are one and the same disease, or whether they are distinct diseases having a similar local manifestation. I class all inflammations of the larynx attended with a false membrane under the broad name of true croup; nor do I claim that my treatment is altogether scientific, but that it will relieve this fearful malady many grateful mothers and suffering children will testify.

When called to a case of true croup in the early stage I usually administer a purgative dose of calomel. After it has acted prepare the following prescription: Quinia sulph., sulphur flors, chlorate potassa, aa. grs. xii; mix well, and divide into twelve powders. Give one (to a child three or five years old) every two hours in slippery elm mucilage, or mucilage acacia, or tragacanth. If the dyspnœa becomes urgent, I use cloths wrung out of the coldest water I can get, applied constantly to the chest until the dyspnœa subsides. If the false membrane is extensive, I use argenti nitras grs. x, aqua pura, ʒi applied with a mop freely over the membrane once in six hours, if it is not extensive, once in ten hours I think sufficient. When the swelling in the throat is very great I vomit my patient with zinci sulph., grs. ii to iii; repeat the dose every ten or fifteen minutes until vomiting takes place.

I do not allow the child to be housed up and hovered over the fire, but give it plenty of fresh air. I believe nature teaches us this, for when we see the little fellows panting and gasping for breath, we should by all means allow them a full supply of that material (oxygen) so necessary to their existence.

If denied, we see them turn black (as it is termed) in the face, which is proof to me that the blood is not being properly oxygenated. After the false membrane disappears and the cough is still crowing, I leave off the cautery and emetic, but keep up the quinia and potash powders, at longer intervals, for some days afterwards, giving also some of the iron preparations.

Now, reader, I do not ask you to take my statement as true, but try it and be convinced of the truth of what I have written.

Respectfully,

Jas. W. Rogers.

Medical Gossip from Berlin.

Berlin, April 27, 1877.

The University Eye Clinic.—For the following historical sketch of this clinic and its present director I am indebted to *Das Medicinische Berlin*, by Dr. J. Rigler, from which it is

translated. After the resignation of Prof. Juengken, Prof. von Graefe, who had for a few years had charge of forty beds for eye diseases in the Charite, was called to the directorship. This position he held till his death, much, of course, hindered by his sufferings, against which his energetic will in vain had striven. Graefe died in July, 1870, of consumption. The clinic was maintained temporarily by Dr. Smith, then Professor at Marburg, till April, 1871, when Prof. Schweigger was appointed to the vacancy. Clinical lectures and operations take place four times in the week for one hour a day. It is stated by Dr. Rigler, above mentioned, that at the time of writing, 1873, there were accommodations for from forty to sixty patients in the wards of this clinic, but that they were thinly occupied; and that also the policlinic, which was then associated with the clinic, was for local reasons, not much frequented. As to the present status of these matters, I can only speak of the latter. It is separated from the clinic, and situated on Marien street, but five minutes walk from the Charite, and is generally quite thronged. The difference between a policlinic and clinic is not very great, and not quite in keeping with the difference in meaning indicated by the names. The former is for out patients, the latter for those who are obliged to remain under the eye of the surgeon. Of course in both places all diseases of the eye may be seen, but in the clinic those of a graver character are found.

Prof. Schweigger was born in October, 1830, in Halle, and is therefore at the present time 47 years of age. He studied in Erlangen and Halle, and was, after he passed his state examination in 1852, assistant, first to Krukenberg, and later—from 1857–65—to Graefe. After considerable traveling for the purpose of scientific inquiry and observation, he settled down in Berlin. In 1868 he was appointed Professor of Ophthalmology in Gœttingen, and in April, 1871 in Berlin. Besides numerous smaller writings which appear in the *Archiv. fuer Ophthalmologie*, Schweigger also wrote a "Handbuch der Augenheilkunde," in 1871, and "Vorlesungen ueber den Gebrauch des Augenspiegels," in 1864.

It appears from this little biography that Prof. Schweigger was 22 years old when he graduated as a *practicing physician*, that is to say, when he passed the examination required by the state. It is remarkable what a contrast exists between Germany and America in respect to the caution observed in sending young men out into the world as physicians. It matters not from what school they have received their medical education, the state interposes her hand against any unqualified person being sent amongst its unsuspecting citizens to receive their confidence and deal with their vital interests Recognizing the inability of even very intelligent people to discriminate between the medical charlatan and the properly qualified physician, she comes to their rescue by putting the stamp of her recognition upon the papers of those who have passed the examination required by law. But even the Universities, notwithstanding their examinations are ignored by the state, require thorough training on the part of the candidate for graduation, and in pronouncing upon his qualifications for the duties of physician, recognize four grades of proficiency, one or other of which he finds indicated upon his diploma. This is the precaution and care exercised against medical imposture in a land where medical schools are not mere mills, whose existence, like that of a mercantile establishment, rests upon how much grinding they get to do, and which are, in the struggle against competition, obliged to attract business by offering improper inducements. On the other hand, in America, where medical schools are exactly in this position, notwithstanding some of them are supposed to be liberally sustained by the state, where, I say, medical schools are mere business enterprises, and prosper or otherwise just in proportion to the patronage they can attract, where they are obliged, as it were, to offer great bargains to those contemplating the acquisition of medical lore, and where, in the extremity of their need, they have, in some cases, become dishonest, and resort to palming off, through the shallow-brained doctor, a shoddy article of education upon the unsuspecting world, where such a state of things exists, the state has made no provision for the protection of its citizens,

ignoring the constant calls of the profession on behalf of the people and of themselves for such protection; but on the contrary, not only does it remain inactive in the matter, but by its direct action to defeat any effort to remedy the evil, as lately took place in Michigan, assumes the relation of accomplice in the inhuman work. Well may it be said that intelligent people are incapable of discriminating between the learned physician and the quack when representative men—not only in politics but in learning—occupy such a position in this relation. What the result is to be finally no one can say now, but at present, in spite of our boasted American enlightenment, there is a ban upon this branch of scientific development, and those who deal in witchcraft, mediumistic healing, clairvoyance, and this species of humbug, are not only not hindered by the state, but to some degree actually fostered.

Further, one will be struck by the fact that Prof. Schweigger was thirteen years assistant to eminent men in ophthalmology before he was appointed to any position as a teacher, and this is no individual exception to the rule of appointments in Germany. We find, on the contrary, that in nearly all cases those who are selected to fill the important place of teachers, are men who have shown already considerable ability, and who have had time themselves first to learn something of what they profess to understand. In fact, if a man has not brought himself to the surface through his own ability, so that he is already heard of and known not only to the medical profession but to the secular authorities of the land, he can never hope for advancement here.

It is to be hoped that the time will come ere long in America when this rule will be observed. The interests of society and of science and our common sense of decency go hand in hand in asking, in pitifully begging, that medical interests with us be placed on a far more substantial basis than at present, and that State schools should be enabled to subsist without regard to the number of students in attendance, that they should be supplied with the very best teachers and facilities for teaching, and finally be compelled to send out only men who have

learned well what they have been taught. As at present in Canada, in Germany, and perhaps in other countries as well, which we are in the habit thinking behind us in the march of progress, every State should have a board of examiners whose duty it should be to test the standing of all persons alike who desire practicing medicine within its borders, without regard to where they graduated or the possession of a diploma.

As to the advantages of studying diseases of the eye here, I believe it is generally admitted by oculists in Germany that, ophthalmology stands as high and has as good workers in America as in any other country. They are not many of course in proportion to the population, but enough for the purpose of those who want to study this specialty. During my attendance at the "charite" eye clinic, I saw about the same class of patients that had come under my observation at the Michigan University clinic, and the treatment they received, was also substantially the same. For the last four months I have been visiting daily the clinic of Dr. Herschberg, where a greater variety of diseases and a great abundance of patients appear, affording one of the best opportunities of studying this class of affections and their treatment. Not the least important thing to be noted here, is the thorough system observed in the clinics in examining patients and recording their condition for future reference. It teaches a valuable lesson to one who, like myself, and in fact most American students who graduate outside our large medical centres, has not had an opportunity of observing it. For instance, in the clinic of Dr. Herschberg, along with the history of the case are kept maps of all the structural changes of the fundus of the eye, whether subjectively or objectively detected, and no case however simple is thought too trifling to keep exact record of in all respects. Thus it is that such men can make there experience of value to the world, being enabled from these accumulated records to give valuable generalizations in relation to the history, prognosis, treatment etc., of the diseases with which they deal. In fact, these records, insignificant as they appear in themselves, are the foundation stones upon which the science of medicine has been built, upon

which it now firmily rests and the source from which all its important contributions are derived. But this is not the only value of such a method, for it also exercises an important influence upon the physician, for he who keeps correct records, must be capable of making exact differential diagnosis, which again demands exact study and observation. This method is, of course, practiced also in many clinics in America, but it is certain that three-fourths of the graduates of American schools have but a very faint idea on leaving their alma mater of either why or how it is done. This is due to the fact that in many schools there are no facilities for patients, and in none is the course long enough to allow the student time for clinical observation. It is indeed impossible to teach medicine in twelve months of college life, which is all the regular training the American student receives. Such a thing is preposterous to think of, and a diploma which asserts the qualification of one, who has taken such a course, to practice medicine, bears a falsehood upon its face, and is a disgrace to the man who bears it. It cannot be that American students are prodigies of intellect while the students of other nations are dunces—that the former can accomplish as much in two semesters as the latter can in eight. No one will believe this; no one does believe it; and therefore are we as a rule held in light esteem abroad. I am proud to learn that Michigan University has again taken another of the progressive steps by which her history is marked—but this time one of prodigious length—in adding three months to each years course of medical studies. Thus, in one act, she has made herself an object of interest to the earnest student, an object of emulation to other schools and the pride of her friends at home and abroad.

The clinics have been for a few weeks closed, but in a few days will be open again. I will write of Langenbeck's clinic in my next.

R. J. P.

Abstracts from Exchanges.

Pathology.

THE BLOOD IN ACUTE YELLOW ATROPHY OF THE LIVER. (*Wiener Med. Wochenschrift*, 1876. *London Med. Record*, Nov. 15, 1876.)—Matterstock found in the first of two cases of acute yellow atrophy of the liver, that the white corpuscles of the blood were greatly increased in number, being in proportion of one to twelve red. In the second case, the white conpuscles were also somewhat increased, but the chief changes were seen in the red corpuscles. They were all abnormal in aspect, but two principal forms prevailed; one the mulberry; the other, the stellate. Four to eighteen processes were seen at the border of each corpuscle; no movement or clearage of the corpuscles could be made out. The corpuscles which showed no processes looked swollen and pale, as if acted on by water. With these changes also appeared those which always take place when blood is drawn from the vessels, and which are usually attributed to dilution with water, or cooling of the blood (Rollett.). These corpuscles appeared smaller than the rest, contracted and with more minute processes. They appeared in groups or singly among the larger corpuscles. In the first case the same appearances were seen, but much less marked in number.

Matterstock thinks that those changes are not due simply to the removal of the blood from the vessels, but yet he does not affirm that those altered forms circulate in the blood. These changes are not due to the high temperature of the latter, as that never rose above 101.3° F. Nor are they due to the bile-acids, for the latter destroy the corpuscles suddenly and completely. In uræmia, the latter are quite natural in shape. There are many points in common, in conclusion, between the appearances seen in these corpuscles and in the monad-containing corpuscles of Hueter, but they differ, as the corpuscles from the jaundiced patients showed no to and fro movement. (*Monthly Abstract*, Jan. 1877.)

Editorial.

NOTICE TO CORRESPONDENTS, ETC.—Communications intended for publication, and books for review, should be addressed to "Editors of Detroit Medical Journal, care of E. B. Smith & Co., Detroit."

All remittances of money, all letters on the business of the JOURNAL, pertaining to subscriptions or advertisements, should be addressed exclusively to the publishers, E. B. Smith & Co., corner Fort and Griswold Streets, Detroit, Mich.

Original Articles, Reports of Medical Societies, Observations, Correspondence, News, etc., of general interest, are respectfully solicited from every source. Articles should be practical and carefully prepared.

The Editors will not be responsible for statements made over the names of contributors.

Memoranda.

The Parisians, during 1876, ate 9,271 horses, asses and mules; an increase over 1875 of nearly three thousand.

Dr. J. W. Freer, professor of physiology and president of Rush Medical College, died on April 20, aged 61.

Dr. Eugene Smith has been appointed ophthalmic and aural surgeon to St. Mary's Hospital of Detroit.

The Medical Department University of Pennsylvania has decided upon the following changes in its teaching: Each student is required to attend three courses, five months each, to be examined for admission, and also at the end of the five month's year. The order of studies is graded—first year, botany, chemistry and working in the chemical laboratory; second year, anatomy, physiology and materia medica, and the third year, therapeutics, physical diagnosis, surgery and obstetrics. The classes are not to exceed sixty. Each professor is to be paid a fixed salary of $3,000. The chemical professors are in future to rank with the regular medical faculty. The chair of Chemistry is vacant, owing to the resignation of Dr. Robert Rogers, who has accepted a similar position in Jefferson Medical College. F. Gurney Smith has resigned the chair of Physiology and Prof. John Neil that of Clinical Surgery. It

is said that these resignations have no relation to the above changes.

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Clinically it is well known that various disorders of the abdominal organs are attended with a condition of melancholia. The intelligence is unaffected but the patient seems to see every thing through blue-tinted spectacles. Various researches render it evident that in some way these visceral disorders produce an anæmic state of the posterior cerebral lobes. Fothergill (page 467 Hand-book of Treatment) calls attention to the curious vaso-motor supply of the posterior cerebral lobes. These lobes are mainly supplied by the vertebral arteries, while the anterior lobes are supplied by the carotid arteries. The latter receive their vaso-motor nerves from the superior cervical ganglion, the former from the inferior cervical ganglion. The last ganglion is in very intimate connection with the thoracic ganglion and spanchnic nerves which supply the abdominal viscera. Cyon has traced nerve fibres from the vaso-motor centre down the vertebral arteries, through the inferior cervical ganglions, the annulus of Vieussens, the thoracic ganglion to the splanchnics of the liver. Admitting that fibres from the viscera to the nerve centres, follow the same route, we

can understand how disturbance of the abdominal viscera can produce melancholia without obviously affecting the intellect. The abdominal disorder produces arterial spasms, and so anæmia of the posterior lobes, and so melancholia. The obvious deductions are self-evident.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Ziemssen. Vol. II. Diseases of the Chylopoetic System, together with Diseases of the Nasopharyngeal Cavity and Pharynx. Cloth, pages 1,046. 1876. New York: William Wood & Co.

In the first one hundred pages Dr. Herman Wendt discusses "Diseases of the Nasopharyngeal Cavity and Pharynx." Then follows a careful study of "Diseases of the Stomach and Intestines," by Prof. W. O. Leube, occupying three hundred and seventy-four pages. Constrictions, occlusions and displacements of the intestines" are treated by Dr. Otto Leichtenstern in about seventy-five pages. Helley devotes seventy-pages to the consideration of "Intestinal parasites." Von Ziemssen occupies about two hundred pages with "Diseases of the larynx." I. Steffen closes the volume with an ample consideration of "Spasm of the glottis." Thus it will be seen that one third of the entire book is devoted to diseases of the pharynx and larynx, and two thirds to diseases of the intestinal canal.

The translation and mechanical execution of this volume is uniform with its predecessors. All we have said of them applies with equal truthfulness to this.

Wendt, in describing the relations of the pharynx to the ear, directs attention to Lucae's observation "that when the nostrils are occluded the air in the middle ear becomes rarified by each act of swallowing." "In this way purely mechanical deafness may be produced in an otherwise healthy ear." In

the escape of gases from the stomach there is a sudden condensation of gases in the nasopharyngeal cavity. Not unfrequently this air passes into the middle ear. If irritating in its nature, inflammation of the Eustachian tube and middle ear follows. At any rate, if often repeated, an abnormal condition of the parts is slowly brought about, and hearing lost or hopelessly impaired. Chronic stomach disorder has a demonstrable connection with diseases of the pharynx, nerves and middle ear. So, too, the habit of breathing through the mouth is a condition of serious disorders of the same parts. Every child should be taught to keep its mouth shut when not talking or eating, and its nares clean and open. The latter is easily accomplished by the daily snuffing of salt water through the nares.

Most persons forget that the glosso-pharyngeal nerve supplies both the lower pharynx and tympanic cavity. This disease in the middle ear may be attended by a cough or a pain in pharynx, or the reverse. In short, disease of the ear may have symptoms mostly referable to the throat, or vice versa. The symptoms, pathology, diagnosis and treatment of the various naso-pharyngeal affections are presented with great clearness.

Leube preceeds the discussion of gastric and intestinal diseases by a brief consideration of the anatomy and physiology of the various organs. A thorough knowledge of the structure and functions of the intestinal tract he rightly regards as absolutely indispensable to the investigation of its diseases. With Broussais, he regards transitory dyspepsia as gastric catarrh, and so the causes of the former as causes of the latter. These irritants acting directly upon the gastric mucous membrane, excite it to inflammation. The more sensitive the stomach the more apt are slight errors in diet to induce a gastritis. Thus infants accustomed to mother's milk are very intolerant of all other substances. Again, the retention of food in the stomach for two long a time, may cause inflammation. Persons suffering from anæmia or fever, or malnutrition, contract gastric catarrh most easily. Experiment has proved that in all these cases there is a decrease in the production of gastric juice, and particularly of the acid element. Besides the muscular coat is so weakened

that the evacuation of the stomach is delayed. For these reasons the food is delayed in the stomach and catarrh ensues.

Most cases of acute gastritis are best treated by a regulation of the diet. In more serious cases it is advisable to cause the patient either to fast or to take nourishment by the rectum. If this course is not pursued a bland, easily digestible diet may be ordered, should these remedies fail, we must remove from the stomach food that is retained too long. This is best done by the stomach pump, or if inadmissible by emesis or catharsis. If acid be lacking it should be administered in water.

Sporadic cholera, cholera morbus and cholera infantum are caused by the action of certain irritants, and particularly by that of fermenting food. In this way the nerves of the gastric and intestinal parietes become irritated to a high degree and thus give rise to excessive peristaltic action of the intestines and vomiting. Among the causes of chronic gastritis Leube places the causes of acute gastritis when these are oft repeated or continuous, the excessive use of concentrated alcoholic liquors, various obstructions to the portal circulation, and diseases of the heart and lungs. The diagnosis of chronic gastritis is an easy matter. But it is very difficult to always refer it to its true origin. Unfortunately most physicians scarcely attempt to solve the problem, but content themselves with prescribing for the most troublesome symptom. Among the symptoms of dyspepsia are certain variations from the normal standard in the composition and transformation of the contents of the stomach. The acid eructations of so many patients contain butyric acid, lactic acid, carbonic acid and hydrogen. Secondarily other acids are produced. At other times an alcoholic change occurs in the transformation of carbohydrates in the stomach, producing carbonic and acetic acids. These fermentative processes are initiated partly by ferments introduced into the stomach from without, and partly by the contact of carbohydrants with putrefying albuminous substances. These changes would be impossible were gastric juice present in its normal quantity and quality. In many cases hydrochloric acid is lacking, in others pepsin and in others still there exists an excessive accumulation of peptones

in the stomach. Depression of spirits or unusual mental excitement may also cause disturbance of the digestive proeess.

The treatment given is based upon the each particular cause. If fermentation occur in the stomach it must be stopped. This has been attempted by carbolic acid and analogous remedies but the most successful remedy consists in emptying the stomach up or down. The best means is the stomach pump.

Mild cases may be well treated by securing an easily digestible diet. The oils, fats, sugars and starches should be taken sparingly. Milk, meat or eggs, in some form, should form the staple diet. The use of bitters, alkaline mineral waters, is well presented.

This chapter alone is worth the price of the entire book, especially if it should compel the reader to look at the facts bearing on the subject as presented by modern physiology.

Gastric ulcer is a common disease, fourteen thousand autopsies showing an average frequency of about *five per cent.* The latest researches show they result from one of two causes. (1.) Diminution of the normal alkalescence of the walls of the stomach. (2.) Abnormal increase in acidity of gastric juice. The diagnosis of gastric ulcer is very difficult in sickly chlorotic girls or women. Leube finds that it is best to begin the treatment of such cases as if gastric ulcer were present. If the disease were not considerably benefited by this diet the existence of an open ulcer was excluded and the case treated as one of anaemic dyspepsia.

Lack of space forbids further illustration of the very practical character of this volume. Taken as a whole we have never read a more satisfactory account of the various diseases discussed. Omissions occur here and there, misstatements are few, style of authors and translators clear and readable. L. C.

THE TONIC TREATMENT OF SYPHILIS. By E. L. Keyes. A.M., M.D. Cloth; pages, 83. 1877. New York: D. Appleton & Co. For Sale by J. M. Arnold & Co., Detroit, Mich.

This monograph is based upon an article by the author in *Amer. Jour. Med. Sciences*, Jan. 1876, and a paper read at the

Centennial International Congress of '76. Other observations are added, and the whole is elaborated into a compact and lasting form.

The author well observes that all previous methods for the treatment of syphilis are essentially empirical. Nor do the empirical methods present any uniformity in the use of mercury and the iodides. "One attempts to produce salivation quickly, another slowly; another to give as much mercury as his patient will hold without becoming salivated. One gives mercury for a very short time, another in interrupted courses; the courses either coinciding with the outcrop of symptoms, or established without regard to them. The majority use mercury only during the secondary period of the disease, depending upon the iodides later; others commence with the iodides, then take up mercury, and finish with the iodides; finally, some use iodides throughout, disbelieving in mercury; and so on to the end of the chapter, each advocate of any particular plan believing that his method is the very best of all, and triumphantly referring to his cases in justification of his belief."

The author proposes a method based upon physiological experiment, inductive reasoning, and clinical observation. By using Wilbouchervitch's hematimetre he counted the number of red corpuscles in human blood more than five hundred times. The blood was taken from twenty-one syphilitic and six healthy persons. The number of corpuscles in the cubic MM. for the adult healthy male was 5,000,000. Mercury given in excess decreases the number of corpuscles. Syphilis diminishes the number of red corpuscles below the healthy standard. Mercury in small doses, given in syphilis, alone or with the iodide of potassium, increases the number of red blood corpuscles in the blood, and maintains a high standard of the same. Mercury in small doses acts as a tonic in healthy animals, increasing their weight. In larger doses it is debilitating or fatal. In human beings in fair health, not syphilitic, mercury in small doses increases the number of red blood corpuscles.

By the same method it was found that the iodides are tonic and increase the number of red cells. But when given early

in syphilis they do not so greatly modify and delay the syphilitic symptoms as does mercury. By clinical observation he shows that small, continued doses of mercury or the iodides in the weight of persons in health.

How long should the general treatment of syphilis be continued? At least two years. But before commencing, the diagnosis of syphilis must be established beyond question, a thing that is impossible before the appearance of secondary symptoms. Further, ere beginning treatment, the patient should be sent to the dentist to have his teeth put in order and the tartar cleaned off; tobacco in every form should be cut off. The diet and personal habits must be carefully regulated on a physiological basis.

Beginning now with a sixth of a grain of protiodide of mercury after each meal, he increases it by a sixth each day until the gums are touched or the bowels irritated. The amount taken the last day is called the patient's *full dose.* This must be ascertained for each patient. Other preparations of mercury may be used in a similar way.

By the aid of opiates the *full dose* is continued till the active symptoms yield. The patient's dose is now reduced one-half, and is called the *tonic dose.* This is to be continued until new symptoms appear, when the full dose must be used until they vanish. The same preparation of mercury should be used continuously on the same person. Particular directions are given for the use of inunction mercurial vapor bath, for treating salivation, for the employment of the iodides in syphilis, for the use of the mixed treatment. In comparing the two remedies he says: "Mercury modifies the disease, iodine cures certain symptoms: mercury tends to prevent relapse, not so iodine. Hence iodine is to be given only during the existence of certain symptoms; when these have been controlled, it should be dropped, and mercury given. The last chapter treats of the local treatment of certain lesions, chancres, buboes, ulcers, etc.

We have been greatly interested in this little work, and commend it to the careful study of all. Certainly a positive advance is made on our old empiricism. L. C.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. I. Based on the Proceedings for 1875, and Largely Supplemented from the Records of 1844 to 1872. John C. Peters, M.D., Editor. Cloth; pages, 272. 1876. New York: Wm. Wood & Co.

About sixty pages of this report are filled with a history of the origin and rise of the society, lists of officers and members. The story of the society is very instructive, in that it proves the power of even a *few* men in the profession if banded together for mutual aid in scientific study. Many years since, when a student in New York, we were greatly interested in the meetings of this society, and often wondered that among so many hundreds of physicians only about a dozen were regular attendants upon them. Perhaps the society did better work because it was small. Be this as it may, we are glad that at last the records of its work are now to be given to the world in a permanent form. The plan selected by the editor is that of the London Pathological Society. In regular order reports of cases or specimens grouped together under proper headings, viz., Diseases of Nervous System, of Organs of Respiration, Circulation and Digestion, of Genito-Urinal Organs, of Osseous System, of Special Senses, of Glands, of Skin, and Miscellaneous Specimens.

Twenty one cases of abscess of the brain are given, with notes and comments. A striking commentary on the usual indifference to continued inflammations of the ear is afforded by the records of thirty-eight cases of brain disease caused by such inflammation. As the post-mortem examinations are given and the specimens exhibited, there is no element of doubt in the picture. Every reasonable effort should be made to stop all chronic discharges from the ear. Fifteen cases of rupture of the heart are given, eighty-four cases of aneurism of the aorta, and fifty-five cases of cancer of the stomach. These last two groups of cases are tabulated in a form very convenient to analyze.

The volume is carefully indexed, and well printed on good paper. We trust that such liberal encouragement will be given to this venture as to encourage the society in a speedy publication of the remainder of its records. L. C.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR 1875. By John M. Woodward, M. D. Cloth; pages, 217. Washington: Government Printing Office.

This report surpasses its predecessors in accuracy and completeness. It well exhibits the needs of the marine hospital service to best protect the interests at stake. In addition to the report proper, an appendix of one hundred pages is devoted to certain papers on "Yellow Fever," "Syphilis Chancroid," "Consumption," "Scurvy," "Seton in Paralysis and Epilepsy." The text is illustrated by tables and diagrams. The suggestions made by the Supervising Surgeon seem fitted to advance the interests involved. As a whole, the report emphatically sets forth the money value of the profession to our ocean and lake commerce. Life and health are money, and these can be best retained only by the intelligent direction of the medical profession. L. C.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Vol. XXVII. 1876. Cloth; pages, 719.

It seems strange to us that the official report of meetings of the American Medical Association should require for its publication eight or nine months. No doubt there are good reasons for this delay, but we have never seen or heard of them. As to subject matter, the volume contains very little that is new. The full section reports are, on the whole, readable and instructive, but not more so than the account of a good medical society, such as weekly meet in all our large cities.

The papers and reports on public health occupy a space proportionate to their importance.

One noticeable improvement consists in printing the minutes of the judicial council separate, and appending to it the entire list of members of the judicial council. At other times we have so fully published discussions of mooted points that we omit further notice here. We doubt not that the next meeting in June, not being disturbed by the Centennial, will prove more successful than its predecessor. L. C.

A Directory for the Dissection of the Human Body. By John Cleland, M.D., F.R.S. Cloth; pages, 182. Philadelphia: H. C. Cea.

This aid in anatomical study differs from any that we have seen. There is no description of the parts, but the student is told how, with the aid of instruments in hand, he may to best advantage display and recognize the several parts. By following the directions here given the student will cultivate his powers of manipulation and observation. Thus a real anatomical knowledge will be gained, instead of a mere book knowledge. We wish it were possible to substitute this method of anatomical study for that too commonly pursued by medical students. Meantime we cordially commend this book to the study of all students and teachers of practical anatomy

L. C.

Transactions of Illinois State Medical Society. 1876. Cloth; pages, 270.

This book makes a fair showing for the profession of Illinois. A careful record of all discussions is presented. This, with the brief reports on various topics, makes a readable book. Of course there is nothing new, as state medical societies do not exist to develop new truth. Still, by their work of diffusing old truths and rendering them living realities in the profession, these societies deserve honorable mention and constant encouragement.

A Series of American Clinical Lectures. Edited by E. C. Seguin, M.D. Vol. 2, 1876. Cloth; pages, 340. New York: G. P. Putnam's Sons.

From time to time during the past year we noticed the several lectures contained in this volume. Our estimate of their value is already before our readers. Altogether they make a volume at once useful and handsome. The subjects discussed cover quite a broad range, as, "Physiological Antagonism," "Morbid Nervous Sensibility," "Melancholia at Home." "Some Forms of Dyspepsia," "Diseases of the Eye," "The Upper Air Passages," "Tracheotomy and Laryngotomy," "The Hypertrophied Prostate," Points in the Surgery of Childhood," "Spinal

Irritation," The Treatment of Eczema," "Peripheral Paralysis." All interested in the study of any of these subjects will do well to read the views here presented.

L. C.

First Annual Report of Wisconsin State Board of Health for Year ending Dec 31st, 1876. Paper; pages, 85.

This Board presents a good showing for its first year. Besides the general facts relating to the establishment of the board we have six articles, as follows: "Small pox and its Prophylaxis," by Dr. E. L. Griffin; "Sewerage and Drainage," by Dr. S. Marks; "Construction and Ventilation of Public Buildings," by Gen. Jas Bintliff; "Mental Hygiene," by Dr. J. Favill; "Food and Domestic Beverages," by Dr. O. G. Selden; and "Registration," by Dr. J. Hobbins. Although these contain very little original observation, they are, as a whole, carefully prepared, and fitted to instruct the laity who may chance to read them.

L. C.

Transactions of the Wisconsin State Medical Society. Paper. Pages, 150. 1876.

Mechanically considered, this report is simply elegant. Paper, type and press work are all in the best style. Beside the usual minutes of the meeting and obituary notices, it contains twenty articles. Eight of these are reports of cases. Surgery, gynæcology and obstetrics were reported on at length. Most papers were short, and practical in their bearings. As a whole, these transactions are a credit to the profession of Wisconsin.

L. C.

Operation of Vesico-Vaginal Fistula. A Comparison of the Methods of N. Bozeman, M.D., N. Y., and Prof. Gustav Simon, Heidelberg. Translated by A. C. Bernays, M. D. Reprinted from the *Richmond and Louisville Med. Jour.* Jan. 1877.

Much of the material here presented has also appeared in the London *Obstet. Jour.* In the reprint before us there are twelve plates, illustrating the text. Altogether it is interesting reading to gynæcologists.

A Course of Practical Histology. By Dr. E. A. Schafer. Cloth; pages, 304. 1877. Philadelphia: H. C. Lea.

This little work is essentially intended for the laboratory, and specially designed for the beginner. The author, being a practical teacher of physiology, has admirably succeeded in meeting the beginner's wants. Had he produced a still smaller book, and one more elementary, he would have better aided in introducing practical histology into the instruction given by medical colleges. We trust that the day is near at hand when all medical students shall be required to work at least two months in a physiological laboratory. L. C.

Dyspepsia. By Seranus Bowen, M. D., Harv. Loring, Boston, Mass. Pamphlet; pages, 30.

Contains nothing new, and seems to be directed to the laity rather than the profession. Its general doctrine is "that dyspepsia may always be cured unless it results from some necessarily fatal disorder."

Stedman and His Men at Chickamauga By J. T. Woods, M.D, Toledo, O. 1876. Cloth; pages, 173.

This is a graphic and critical account of a part of a great battle. It is well illustrated by accurate maps and diagrams. Those interested in the study of this part of the late war will do well to examine this book. L. C.

Full Term Extra Uterine Gestation of the Tubo-Ovarian Form, with Special Examination of the Sac, Uterus, and Appendages. By A. S. Campbell, M.D.

Reprinted from *Amer. Jour. Obstet.*, Oct. '76.

Function of the Uvula and the Prominence formed by the Azygos Uvulæ Muscles. By Thos. F. Rumbold, M.D.

Reprinted from St. Louis *Med. Jour.*, Dec. '76.

The Relations of the Medical Profession to Medical Education. By Edward S. Dunster, M.D. Paper; pages, 25. 1870. New York: D. Appleton & Co.

A capital discussion of a very important topic.

Meteorological Report of Detroit for April, 1877.

BY C. HENRI LEONARD, M. D., OBSERVER FOR STATE BOARD OF HEALTH.

BAROMETER.—Highest, 30.420; lowest, 29.386; range, 1.034; average, 29.959. About the general average.

TEMPERATURE.—Highest, 75 (this on the 23d); lowest, 20 (this on the 3d); range, 55; average, 46. This is above the general average for the last five years. In '72 the daily average was 46.8; in '73, 42; in '74' 37.3; in '75, 40.9; in '76, 44. The thermometer fell 12° lower in '75 than this year.

WINDS.—Prevailing direction, N. E. (11 days). Greatest velocity, 42 miles per hour. Total number of miles traveled, 4,963. "Calms" at six observations. The day of least wind travel was the 22d, then but 37 miles was made. On the whole it has been a decidedly calmy month; the total number of miles made being from 700 to (nearly) 2,000 miles short of that made in the five preceding Aprils.

CLOUDS.—Clear, 11; cloudy, 11; rainy, 11. This is about the usual number of rainy days in April.

RAINFALL.—Greatest daily amount, 1.22 inches (this on the 19th). Total amount of precipitation, 3.27 inches. It has been a wet April; the total amounts being, for the past five years (beginning with '72), as follows: 2.15; 4.74; 1.39; 0.70: 1.80.

MOISTURE.—Highest "absolute," 4.41 grains to cubic foot of air; this was on the 1st. Highest "relative" at the 2 P. M. observations of the 18th and 28th. Saturation was then complete, the per centage being 100. The "absolute" at these observations were 3.88 grains, and 4.14 grains. The "relative" humidity of the 1st (when the "absolute" was highest), was but 71 per cent. This emphatically shows that the relative and absolute humidities are independent of each other. It is the "absolute" that marks the increase of intestinal diseases in children.

OZONE.—Maximum coloration, 2 (this on the 2d); 1 was reached upon eight other days. Only one day, the 23d, did it seem to be entirely absent. Note that this followed the day of least wind, hence least ærial electricity by friction.

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A **Grateful Stimulant** and **Tonic.** Is an excellent preparation for **Dyspepsia, Flatulent Colic** and the feeble state of the alimentary canal. As a Summer Medicine in the house it has no superior.

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JAMES F. NOYES, M. D.,
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LEARTUS CONNOR, M. D., Secretary,
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RECITATION SESSION.

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Lecturer on Genito-Urinary System and Rectum.

DANIEL LAFERTE, M. D.,
(Demonstrator of Anatomy) and Lecturer on Orthopœdic Surgery and Tumors.

J. G JOHNSON, M. D.,
Lecturer on Diseases of Mind and Nervous System.

DAVID INGLIS, M. D.,
Lecturer on Histology, Curator of Museum and Librarian.

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Lecturer on Differential Diagnosis.

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C. C. YEMANS, M. D.,
Lecturer on Chemistry.

JAS. D. MUNSON, M. D.,
Demonstrator of Practical Physiology.

E. A. CHAPOTON, M. D.,
Demonstrator of Practical Microscopy.

The Collegiate Year is divided into three sessions.

PRELIMINARY SESSION opens Wednesday, September 5th, 1877, and continues one month. The Clinics are held and the Lectures delivered by the Professors of the regular Faculty, and in the same order and frequency as during the Winter Term. Opportunity is given to dissect or work in the Chemical and Physiological Laboratories.

The REGULAR SESSION opens Wednesday, October 3d, 1877, and continues five months. During this term all the branches of *General Medicine* and *Surgery*, both scientific and practical, are taught with care and thoroughness. All students are daily examined on the subjects of the lectures and on their dissecting and laboratory work.

Senior students have *daily practice* in the *art of examining patients*, in forming their own diagnosis, prognosis and treatment. As this is done under the direction of the professor holding each clinic, and in the presence of the class, it constitutes an invaluable course of training.

The RECITATION SESSION begins second Wednesday in March, 1878, and continues four months. Daily during this term there will be held a lecture, recitation, and one or two clinics. The lectures will be upon special subjects of medical or surgical interest.

The recitations will embrace the general subjects of the Regular Session, viz., Anatomy, Surgery, Midwifery, Diseases of Women, Physiology, Practice of Medicine, Materia Medica and Chemistry.

Though the Recitation and Preliminary Sessions are optional, it is hoped that all who can will avail themselves of their manifest advantages in supplementing the regular winter course.

Three Hospitals—Harper's, St. Mary's and St. Luke's—with two large free dispensaries, afford an abundance of clinical material for illustrative and practical teaching.

All lectures are delivered on Hospital grounds. The *peculiar feature* of this school is the *intimate union* between its *laboratory*, *clinical* and *didactic* instruction.

FEES.—For Preliminary and Regular Sessions: Matriculation $5. Hospital Fees (good for one year), $10. Lecture Fees, $40. Graduation, $25. Lecture fees to third course students. $25.

For the Recitation Term the Lecture fees are $10, to those who attend the other courses. All others are required to matriculate and take out the Hospital tickets.

All fees payable in advance to the *Secretary*.

Board and Rooms can be obtained at low rates—according to accommodations—from $3 to $5 per week. Announcement and Catalogue, or any further information which may be desired, can be promptly obtained by addressing

LEARTUS CONNOR, M. D., SECRETARY,
94 Cass St., Detroit, Mich.